

Set	Items	Description
S1	111691	ROPE OR ROPES
S2	705035	ANCHOR? OR SECURE? OR SECURING OR HARNESS?
S3	1911378	BUILD? OR STRUCTUR? OR ROOF? OR CONTRUCTION?
S4	2048906	MOUNT? OR ENGAG?
S5	5981825	DEVICE? OR APPARATUS? OR TOOL?
S6	2776	S1 AND S2 AND S5
S7	323	S6 AND SAFETY
S8	46	S7 AND IC=(E04B? OR E04G? OR E04C?)
S9	181	S6 AND S3 AND S4
S10	26	S9 AND IC=(E04B? OR E04G? OR E04C?)
S11	61	S10 OR S8

? show file

File 344:Chinese Patents Abs Aug 1985-2003/Jan

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File 347:JAPIO Oct 1976-2002/Dec(Updated 030402)

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File 350:Derwent WPIX 1963-2003/UD,UM &UP=200323

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File 371:French Patents 1961-2002/BOPI 200209

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11/5/1 (Item 1 from file: 347)
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07495686 **Image available**
DAMPING APPARATUS OF STRUCTURE

PUB. NO.: 2002-364205 [JP 2002364205 A]
PUBLISHED: December 18, 2002 (20021218)
INVENTOR(s): ISHIMARU TATSUJI
ISHIGAKI SHUSUKE
HATA IPPEI
UOZU GENJI
APPLICANT(s): NIHON UNIVERSITY
UOTSUSHAJI KOMUTEN KK
APPL. NO.: 2001-172255 [JP 2001172255]
FILED: June 07, 2001 (20010607)
INTL CLASS: E04H-009/02; E04B-001/98 ; F16F-015/02

ABSTRACT

PROBLEM TO BE SOLVED: To provide a damping apparatus of structure capable of securing a damping function to the structure and securing large space section between a column and a beam.

SOLUTION: One end of the damping apparatus of structure is fixed to an upper structure 11, and the other is fixed to a lower structure 16. The damping apparatus comprises a rope 17 that is longer than the column 10, a main arm 13 whose one end is mounted to the column rotatably, and a sub arm 14 whose one end is connected to the other rotary end section of the main arm rotatably, and the other is fixed to the middle section of the rope. A buffer member 15 is included between the connection section of the main and sub arms, and the upper structure or the lower structure, and an urging member 30 for applying tension to the rope is included between the main arm or sub arm, and the upper structure or the lower structure.

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11/5/2 (Item 2 from file: 347)
DIALOG(R)File 347:JAPIO
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07089560 **Image available**
FACILITY DEVICE OF SAFETY ROPE FOR WORK AND ITS METHOD

PUB. NO.: 2001-317211 [JP 2001317211 A]
PUBLISHED: November 16, 2001 (20011116)
INVENTOR(s): ABE AKIRA
APPLICANT(s): EBAA SHOKAI KK
APPL. NO.: 2000-138783 [JP 2000138783]
FILED: May 11, 2000 (20000511)
INTL CLASS: E04G-021/32

ABSTRACT

PROBLEM TO BE SOLVED: To provide the facility device of a safety rope for works, in which there is no compulsoriness in a working posture even on a ladder, the sure and easy throw of a guide rope is devised and the safety rope such as a lifeline can be installed on a roof, and its facility method.

SOLUTION: In the facility **device** for installing the **safety rope** for works such as the lifeline a **rope** for lifting and lowering or the like onto the **roof** , a **device** frame 1 has a **mounting** section 2 to the ladder H so that the frame 1 is **secured** detachably to a rod-shaped section at the upper end of the ladder H for lifting and lowering. A ball gun 3 is set up to the **device** frame 1 towards the reverse side of the **roof** at a required elevation, and a ball 4 thrown by the ball gun 3 is fitted at one tip of the **rope** 5 for guidance linked with the **safety rope** R. The **safety rope** R and the **rope** 5 for guidance are housed in housing instruments 6, 7 at the upper end site of the ladder H.

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11/5/3 (Item 3 from file: 347)

DIALOG(R)File 347:JAPIO

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06759847 **Image available**
CONSTRUCTION METHOD OF CONCRETE WALL

PUB. NO.: 2000-345716 [JP 2000345716 A]
PUBLISHED: December 12, 2000 (20001212)
INVENTOR(s): CHIKAMORI SEISHI
KOBAYASHI TEIJI
APPLICANT(s): KOBE KIZAI KK
APPL. NO.: 11-157691 [JP 99157691]
FILED: June 04, 1999 (19990604)
INTL CLASS: E04G-021/32

ABSTRACT

PROBLEM TO BE SOLVED: To provide a construction method capable of **securing safety** of the finishing work of a concrete wall face.

SOLUTION: In an execution method of a concrete wall 1 in which a finishing material is installed on the wall face 1a of the concrete wall 1 made by placing concrete and molding it by making use of a concrete form fixed by a separator 2, a cone for supporting the form, a shaft leg, and a form-tightening rod, the concrete form is removed and then, a screwed tool 10 in which a **rope** through piece 9 in which is protruded at the head is screwed in a screw hole 8 by making use of the screw hole 8 generated after the shaft leg has been removed from the screw hole 8 of each cone 3 embedded in the concrete wall 1. A **safety rope** is inserted in the **rope** through piece 9 and tensioned. Further, an operator's **safety rope** is tied to the **safety rope** for working.

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11/5/4 (Item 4 from file: 347)

DIALOG(R)File 347:JAPIO

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06679805 **Image available**
SAFETY TOOL AND SAFETY STRUCTURE FOR WORKING ON ROOF

PUB. NO.: 2000-265634 [JP 2000265634 A]
PUBLISHED: September 26, 2000 (20000926)
INVENTOR(s): HIROZAWA KENJI

MORI KAZUHARU
TAKAHASHI SHUICHI
APPLICANT(s): DAIWA HOUSE IND CO LTD
APPL. NO.: 11-068731 [JP 9968731]
FILED: March 15, 1999 (19990315)
INTL CLASS: E04D-015/00; E04G-021/32

ABSTRACT

PROBLEM TO BE SOLVED: To provide a **safety tool** and **safety** structure for working on a roof improving the **safety** for workers working on the roof, easily **securing** the **safety**, exhibiting advantages in the cost and the construction term, and used advantageously in space even when there is an obstruction near a building.

SOLUTION: A **safety tool** for working on a roof is provided with a **safety wire rope** 4 extended along the whole of a building 2 or the approximately whole into an inverse-U-shape with a roof part 3 of the building set to a turn point, and interval holding **tools** 5... interposed at some intervals along the **rope** 4 between the **rope** 4 and the building 2 in such a state as separating the wire **rope** 4 outward from the building 2.

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11/5/5 (Item 5 from file: 347)
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06459961 **Image available**
SAFETY DEVICE

PUB. NO.: 2000-045535 [JP 2000045535 A]
PUBLISHED: February 15, 2000 (20000215)
INVENTOR(s): NAKAGAWA HIDEO
APPLICANT(s): NTT POWER & BUILDING FACILITIES INC
APPL. NO.: 10-212670 [JP 98212670]
FILED: July 28, 1998 (19980728)
INTL CLASS: E04G-021/32

ABSTRACT

PROBLEM TO BE SOLVED: To provide a **safety device** capable of **securing safety** by sufficiently **securing** the movement of a worker and making workability good.

SOLUTION: A **safety device** 10 for preventing a falling risk in the case where a worker works at a high place is provided with a fixing means 14 attached and fixed to the worker, a connection member 11 connected to the fixing means 14 at one end side, a sliding member 12 connected to the other end side of the connection member 11, and a rail member 11 for guiding the slide of the sliding member 12. The connection member 11 has a winding means 13 and a freely pulling **rope** body 41 wound around the winding means 13.

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11/5/6 (Item 6 from file: 347)
DIALOG(R)File 347:JAPIO
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06288038 **Image available**
SAFETY ROPE SUPPORT DEVICE FOR CONSTRUCTION

PUB. NO.: 11-229629 [JP 11229629 A]
PUBLISHED: August 24, 1999 (19990824)
INVENTOR(s): SONE HIDEHARU
 NAKAMURA GORO
 OHATA SATOSHI
APPLICANT(s): SEKISUI HOUSE LTD
APPL. NO.: 10-038252 [JP 9838252]
FILED: February 20, 1998 (19980220)
INTL CLASS: **E04G-021/32** ; A62B-035/00

ABSTRACT

PROBLEM TO BE SOLVED: To provide a **safety rope support device** capable of very simply performing attaching and detaching working and enabling detachment after attaching an outer wall and **securing working safety** .

SOLUTION: A pedestal 10 is engaged with the edge part of the flange 31 of a beam 30 and slipping-off of a fixing pin 21 from an insertion hole 32 is prevented by horizontally rotating the pedestal 10 fixed on a support 1 around the fixing pin 21. An insertion pin 22 is inserted in the through hole 20 of the pedestal 10 and the insertion hole 32 of the flange 31 from upward, and the pedestal 10 is fixed on the flange 31. When the insertion pin 22 is pulled off to rotate the pedestal 10 horizontally and to release engagement by the pedestal 10, the fixing pin 21 can be pulled to be detached.

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11/5/7 (Item 7 from file: 347)
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05742803 **Image available**
SHEET MOUNTING SLENDER CLOTH WITH FLOATING BELT

PUB. NO.: 10-025903 [JP 10025903 A]
PUBLISHED: January 27, 1998 (19980127)
INVENTOR(s): HATTORI KEIKO
APPLICANT(s): ORUSEN KK [000000] (A Japanese Company or Corporation), JP
 (Japan)
 TAIYO KOGYO KK [401280] (A Japanese Company or Corporation),
 JP (Japan)
APPL. NO.: 09-072833 [JP 9772833]
FILED: March 11, 1997 (19970311)
INTL CLASS: [6] **E04G-021/32** ; D03D-001/00
JAPIO CLASS: 27.2 (CONSTRUCTION -- **Building**); 14.2 (ORGANIC CHEMISTRY --
 High Polymer Molecular Compounds); 15.2 (FIBERS -- Cloth
 Products

ABSTRACT

PROBLEM TO BE SOLVED: To provide a sheet capable of being speedily or surely connected of fixed without requiring for making holes for lowering strength.

SOLUTION: B is the slender cloth, and it is formed of a slender cloth main body 1 and floating belts 2. The slender cloth main body 1 is divided into

sheet **mounting** parts 1a on both sides in the direction of the width and a floating belt **mounting** part 1e in the central part. Sheets 3 are monolithically **mounted** to the sheet **mounting** parts 1a with a joint **device** such as sewing or welding, etc. Both ends of each of the floating belts 2 and the slender cloth main body 1 are formed together as a unit at proper intervals in the longitudinal proper positions of the floating belt **mounting** part 1e. In order to connect the sheets 3 to each other or to fasten them to an **anchorage** matter, a joint **rope** is inserted in the floating belts 2 to bind or fasten.

11/5/8 (Item 8 from file: 347)

DIALOG(R)File 347:JAPIO

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05560969 **Image available**

REMOTE CONTROL TYPE REVOLVING HOISTING JIG

PUB. NO.: 09-175769 [JP 9175769 A]

PUBLISHED: July 08, 1997 (19970708)

INVENTOR(s): SAKAI SHUNICHI

UEHARA YOSHIFUMI

MURAKAMI HIROSHI

YOSHIDA KOJI

APPLICANT(s): SHIMIZU CORP [000229] (A Japanese Company or Corporation), JP (Japan)

APPL. NO.: 07-350835 [JP 95350835]

FILED: December 26, 1995 (19951226)

INTL CLASS: [6] B66C-001/12; B66C-013/08; B66C-013/40; E04G-021/16

JAPIO CLASS: 26.9 (TRANSPORTATION -- Other); 27.2 (CONSTRUCTION -- Building)

ABSTRACT

PROBLEM TO BE SOLVED: To prevent such danger as out of balance and falling of a lifted load from occurring by rotatably supporting a hoisting accessory on the lower part of a hoisting jig hung on a hook of a crane or the like and make the hoisting accessory possible to remotely control it through a drive mechanism provided on a jig body.

SOLUTION: A lengthy heavy weight substance W is transferred to a specific place by **securely** hanging a wire **rope** R slung on the lengthy heavy weight substance W on a fitting hole 3c formed on a fitting part 3b on a hoisting accessory 3 and lifting it up by hooking a hook F of a crane or the like on a pin 2b on a catching part 2. In this case, when the heavy weight substance W is rotated so as not to come in contact with the inside wall, a protrusion, a beam, elevating equipment or the like, a servo motor 11 provided on a jig body 1 is driven by operating an operating **apparatus**, which is a transmitter, the rotation of the heavy weight substance W is transmitted to a bevel gear 9 by reducing the rotation speed by a harmonic drive 12. The heavy weight substance W is rotated by transmitting the speed reduction controlled rotation to a shaft of the hoisting accessory 3 through a bevel gear 7 **engaging** with the bevel gear 9.

11/5/9 (Item 9 from file: 347)

DIALOG(R)File 347:JAPIO

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05554681 **Image available**

ELEVATING **DEVICE** FOR INSTALLING ELEVATOR

PUB. NO.: 09-169481 [JP 9169481 A]
PUBLISHED: June 30, 1997 (19970630)
INVENTOR(s): KUNITO KAZUO
APPLICANT(s): HITACHI BUILDING SYST CO LTD [457860] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 07-332014 [JP 95332014]
FILED: December 20, 1995 (19951220)
INTL CLASS: [6] B66B-009/187; **E04G-003/10**
JAPIO CLASS: 26.9 (TRANSPORTATION -- Other); 27.2 (CONSTRUCTION -- Building)

ABSTRACT

PROBLEM TO BE SOLVED: To restrict the deterioration of working efficiency and a rise of the cost due to use of a temporary member as small as possible, and to prevent the inclination of a cage even in the case where a slip is repeatedly generated in the same winding machine so as to **secure the safety**.

SOLUTION: A connecting **rope** 3 is wrapped around a pulley 4 of a member to be fitted to an upper part of a cage 5, and both ends of this connecting **rope** 3 are connected to different winding machines 11, 12, and while when a displacement of height position of both the winding machines 11, 12 exceeds the predetermined value, a detecting cam 13 (or 14) abuts on a detecting switch 6 (or 7) so as to automatically stop the drive of the winding machine, which is advanced in the moving direction of the cage 5, of both the winding machines 11, 12.

11/5/10 (Item 10 from file: 347)

DIALOG(R)File 347:JAPIO

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05301653 **Image available**

RESCUE ROPE APPARATUS

PUB. NO.: 08-257153 [JP 8257153 A]
PUBLISHED: October 08, 1996 (19961008)
INVENTOR(s): SAITO SEIJI
OGAWA TARO
APPLICANT(s): KAWAJU KOJI KK [486692] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 07-091977 [JP 9591977]
FILED: March 27, 1995 (19950327)
INTL CLASS: [6] A62B-037/00; **E04G-021/32**
JAPIO CLASS: 28.9 (SANITATION -- Other); 27.2 (CONSTRUCTION -- Building)

ABSTRACT

PURPOSE: To enable improving of **safety** in the work of spreading a **safety** net by lifting one **anchor** truck on a post of the body of a rescuing **rope** with a rack and a gear to spread the **safety** net expanding an arm **mounted** on the **anchor** truck.

CONSTITUTION: A moving truck 9 is moved to a hoisting shaft space of an erection working site to carry in a rescue **rope apparatus** 6. A post 10 is stabilized by a subpost 11 to be erected **securely**. Then, a button of a controller 24 of the post 10 is operated and a worm gear 14 is turned to rotate a rack 13 of the post 10 so that it is lifted by a specified stroke along the post 10 together with an **anchor** truck 15. Then, a hydraulic cylinder 23 is operated to turn arms 17 to expand through a cam 22 and a roller 20 is kept in sliding contact with a steel post thereby spreading

the **safety** net 21.

11/5/11 (Item 11 from file: 347)
DIALOG(R)File 347:JAPIO
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05244300 **Image available**
GONDOLA **DEVICE**

PUB. NO.: 08-199800 [JP 8199800 A]
PUBLISHED: August 06, 1996 (19960806)
INVENTOR(s): YAMADA HIDEKI
APPLICANT(s): NIHON BISOH CO LTD [460400] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 07-024672 [JP 9524672]
FILED: January 19, 1995 (19950119)
INTL CLASS: [6] **E04G-003/10** ; B66B-009/187; B66D-001/14; B66D-001/54; B66D-005/16
JAPIO CLASS: 27.2 (CONSTRUCTION -- **Building**); 26.9 (TRANSPORTATION -- Other); 37.1 (**SAFETY** -- Industrial

ABSTRACT

PURPOSE: To make it possible to prevent a gondola from dropping without using a **rope** and hence **secure** the **safety** of the gondola and also prevent the **rope** from hanging down to a lower elevation than that of the gondola..

CONSTITUTION: A suspension wire **rope** whose one end is fixed with a truck is installed so that it may wind up a pulley 42 turnably installed to a gondola 4 and reach a hoist **device** equipped with the gondola. The gondola 4 is suspended with a suspension **rope** 3 while it rises and falls with the drive of the hoist **device**. Lock **device** 61 and 62 which are **engaged** with the suspension wire **rope** 3 are pivotally supported on arms 51 and 52 pivoted on the gondola 4 at a pivoted shaft located at a vertical line passing through the rotary central shaft of the pulley 42 in the gondola 4 so that they may be installed at the positions equivalent to the suspension wire **ropes** 3 on the upstream side and the downstream side of the pulley 42 respectively.

11/5/12 (Item 12 from file: 347)
DIALOG(R)File 347:JAPIO
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05233639 **Image available**
END-SECTION **ANCHOR DEVICE** FOR RUSTPROOF COVERED PC **ROPE STRAND**

PUB. NO.: 08-189139 [JP 8189139 A]
PUBLISHED: July 23, 1996 (19960723)
INVENTOR(s): ROKUSHA HIROMU
TAGUCHI YASUO
TANNO MASASHI
APPLICANT(s): S C R CORP KK [000000] (A Japanese Company or Corporation), JP (Japan)
TIMES ENG KK [000000] (A Japanese Company or Corporation), JP (Japan)
FUDO KENKEN KK [465749] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 06-339742 [JP 94339742]
FILED: December 29, 1994 (19941229)

INTL CLASS: [6] E04C-005/08 ; E04C-005/12
JAPIO CLASS: 27.2 (CONSTRUCTION -- Building); 14.2 (ORGANIC CHEMISTRY --
High Polymer Molecular Compounds
JAPIO KEYWORD:R074 (CONSTRUCTION -- Prestressed Concrete, PS & PC)
ABSTRACT

PURPOSE: To **anchor** a rustproof covered PC **rope** strand to a wedge surely without requiring special labor.

CONSTITUTION: An **anchor** wedge 16 being inserted to arrangement, in which a rustproof covered PC **rope** strand 13 is gripped, and holding the rustproof covered PC **rope** strand by pulling-in by return force after the rustproof covered PC **rope** strand 13 is stretched is **mounted** into the tapered hole 15a of an **anchor** body 15, into which the end section of the rustproof covered PC **rope** strand 13, in which a synthetic resin cover is executed along the twisted shape of the outer circumferential surface of a PC **rope** strand, is inserted. A spiral recessed groove 17 mutually fitted to the twisted shape of the outer circumferential surface of the rustproof covered PC **rope** strand 13 is formed to the internal surface of the **anchor** wedge 16, and a large number of non-slip projections biting only into the rustproof covered layer of the rustproof covered PC **rope** strand are protruded to the inner circumferential surface of the **anchor** wedge 16 as required.

11/5/13 (Item 13 from file: 347)
DIALOG(R)File 347:JAPIO
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05145037 **Image available**

SAFETY DEVICE FOR WORK OF ASSEMBLING OR DISASSEMBLING CRANE BOOM

PUB. NO.: 08-100537 [JP 8100537 A]
PUBLISHED: April 16, 1996 (19960416)
INVENTOR(s): NAKAMURA YONEMASA
APPLICANT(s): KANTO LEASE KK [000000] (A Japanese Company or Corporation),
JP (Japan)
APPL. NO.: 06-237387 [JP 94237387]
FILED: September 30, 1994 (19940930)
INTL CLASS: [6] E04G-021/32 ; B66C-015/00; B66C-023/26; B66C-023/88
JAPIO CLASS: 27.2 (CONSTRUCTION -- Building); 26.9 (TRANSPORTATION --
Other); 37.1 (**SAFETY** -- Industrial

ABSTRACT

PURPOSE: To **secure** the **safety** of workers who assemble or disassemble a crane boom, by a method wherein each supporting post is erected on adjacent lattice pipes bridged between main pipes on the upper side of the crane boom, a **rope** is stretched between the connection parts, each of which is at the top end of the supporting post, and a **safety** belt is attached to the **rope** .

CONSTITUTION: A base member 13, in which a cylindrical pipe 21 for erecting a supporting post 19 is pierced and to which the pipe 21 is welded, is removably attached between adjacent lattice pipes 3, 5 bridged between main pipes 1, 1 on the upper side of a crane boom 9, with two U-shaped bolts 15. The supporting post 19 on the top end of which a connection part 27 is formed is inserted into the pipe 21 and is fixed and erected by a ringed stopper 29 and with a cotter pin 31, and a **rope** 25 is stretched between the connection parts 27. Each end of the **rope** 25 is connected to the ring of the connection part 27 of the supporting post 19, through a hook 35, and the **ropes** 25 are stretched parallel to the main pipe 1 on the upper side

of the boom 9. A **safety** belt 23 for each worker who assembles or disassembles the boom 9 is attached to the **rope** 25.

11/5/14 (Item 14 from file: 347)
DIALOG(R)File 347:JAPIO
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05130185 **Image available**

SAFETY LOCK DEVICE OF ELEVATING BODY ALONG GUIDE RAIL

PUB. NO.: 08-085685 [JP 8085685 A]
PUBLISHED: April 02, 1996 (19960402)
INVENTOR(s): TAKAHASHI YUZURU
NIISATO AKIO
APPLICANT(s): TOSHIBA ELEVATOR TECHNOS KK [000000] (A Japanese Company or Corporation), JP (Japan)
NIHON BISOH CO LTD [460400] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 06-250076 [JP 94250076]
FILED: September 19, 1994 (19940919)
INTL CLASS: [6] B66B-005/18; B66D-005/08; **E04G-003/10**
JAPIO CLASS: 26.9 (TRANSPORTATION -- Other); 27.2 (CONSTRUCTION -- Building)

ABSTRACT

PURPOSE: To provide a **safety** lock **device** of an elevating body along a guide rail capable of smoothly working without causing a trouble to work on the elevating body and **securing** **safety** in case of emergency.

CONSTITUTION: A falling detection rod 31 to detect lowering of an elevating body at the time when a wire **rope** is cut off by way of providing it on the elevating body is doubly used as a **mount** 22 of a vertically moving winder 19, this falling detection rod 31 and a wedge member 40 of a lock mechanism 37 to fix a guide rail 13 by damping it under pressure are connected to each other through a link mechanism 34, and a roller 41 of this wedge member 40 is devised to elevate along an inclined surface 39 of a fixed block 38. Thereafter, the lock mechanism 37 is positioned on the guide rail 13 sequentially set from below and certainly fixed and locked on the guide rail 13 by a wedge effect by way of transmitting movement of the falling detection rod 31 to the wedge member 40 in case of emergency. Consequently, it is possible to simplify **structure**, to work smoothly and to **secure** **safety** in case of emergency.

11/5/15 (Item 15 from file: 347)
DIALOG(R)File 347:JAPIO
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05048807 **Image available**

ROPEWAY SYSTEM FOR HORIZONTAL TRANSPORTATION

PUB. NO.: 08-004307 [JP 8004307 A]
PUBLISHED: January 09, 1996 (19960109)
INVENTOR(s): YAMAZAKI SHINOBU
YOSHIDA KOJI
NISHIDA NORIHIRO
YANAGIDA RYUICHI
APPLICANT(s): SHIMIZU CORP [000229] (A Japanese Company or Corporation), JP (Japan)

APPL. NO.: 06-156445 [JP 94156445]
FILED: June 16, 1994 (19940616)
INTL CLASS: [6] **E04G-021/16** ; B66C-021/00
JAPIO CLASS: 27.2 (CONSTRUCTION -- **Building**); 26.9 (TRANSPORTATION --
Other

ABSTRACT

PURPOSE: To reduce a pendent amount of the central part of the main **rope** , to facilitate the handling of the main **rope** with small tension and to make it possible to reshore simply the main **rope** by fixing both ends thereof to bear the horizontally built main **rope** on a bearing material, loading a carriage block to the main **rope** and, at the same time, connecting it to a connection beam to **mount** a lifting **device** .

CONSTITUTION: Both ends of the main **rope** 1 is fixed through an **anchor** saddle 11 and a heel block 7 to horizontally **build** . In addition, the main **rope** is maintained in a proper tension state with a tension **device** 8. Intermediate bearing members 13 are **mounted** at proper intervals, and the main **rope** 1 is borne on the lower ends. Dead weight of the main **rope** 1 and weight suspended to the main **rope** 1 are also borne on them. After that, the block 3 is suspended to the main **rope** 1 and, at the same time, it is connected to a connection beam 12. Therefore, load is scattered. Successively, a horizontal **rope** 2 connected to the beam 12 is pulled out with a drum 9 and a block 10 and is moved with the beam 12 and, at the same time, the block 3 is moved to transport a transporting object 6. According to the constitution, delivery or transportation work of materials can be safely and efficiently carried out.

11/5/16 (Item 16 from file: 347)

DIALOG(R) File 347:JAPIO
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04965290 **Image available**

CONSTRUCTION MATERIAL LIFTING **DEVICE** OF HIGH-PLACE WORKING VEHICLE

PUB. NO.: 07-257890 [JP 7257890 A]
PUBLISHED: October 09, 1995 (19951009)
INVENTOR(s): ITO TATSUO
MIYAMA AKIRA
APPLICANT(s): NIPPON SHARYO SEIZO KAISHA LTD [000461] (A Japanese Company or Corporation), JP (Japan)
FUJITA CORP [366436] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 06-047451 [JP 9447451]
FILED: March 17, 1994 (19940317)
INTL CLASS: [6] B66F-009/06; B66F-011/04; E04F-021/18; **E04G-021/16**
JAPIO CLASS: 26.9 (TRANSPORTATION -- Other); 27.2 (CONSTRUCTION --
Building)

ABSTRACT

PURPOSE: To provide a material lifting **device** which is used in a high-place working vehicle, **structured** simply, can lift materials quickly and safely, and can lift the material over the level attained by elongating a cylinder to the maximum.

CONSTITUTION: On a working table 5, a pair of telescopic expansion/contraction guides 9, 9 are opposingly installed, in which a free guide 9c is arranged between the outer guide 9a and inner guide 9b on each side. A placing table 11 for ceiling material 6 is **mounted** at the top of

the inner guide 9b, and a cylinder 10 equipped at the top with sheaves 14, 14 is installed in the middle between the guides 9, 9. A wire rope 15 is set over the sheaves 14, 14. One end of the wire rope 15 is secured to the lower part of one of the inner guides 9b and passed under the lower part of the base plate mounting part of the cylinder body 10a via one of the sheaves 14, while the other end is attached fast to the lower part of the other inner guide 9b. Guide 9 is furnished with a sensor to emit a signal to once restrict the elongation of the cylinder 10.

11/5/17 (Item 17 from file: 347)
DIALOG(R)File 347:JAPIO
(c) 2003 JPO & JAPIO. All rts. reserv.

04841059 **Image available**
FALL PREVENTING DEVICE FOR ON- ROOF WORK

PUB. NO.: 07-133659 [JP 7133659 A]
PUBLISHED: May 23, 1995 (19950523)
INVENTOR(s): IIYAMA SHINICHI
OMOE MUNEO
APPLICANT(s): KOMATSU HOUSE KK [000000] (A Japanese Company or Corporation)
, JP (Japan)
APPL. NO.: 05-303296 [JP 93303296]
FILED: November 10, 1993 (19931110)
INTL CLASS: [6] E04D-015/00; E04G-021/32
JAPIO CLASS: 27.2 (CONSTRUCTION -- Building)
JAPIO KEYWORD:R075 (CONSTRUCTION -- Prefabricated Buildings)

ABSTRACT

PURPOSE: To aim at the safety of workers by stretching main ropes between two poles respectively supported by a pole fixing device , and connecting the main ropes at appropriate positions in the ridge direction and in the gable direction, and connecting a protecting net to these main ropes .

CONSTITUTION: Poles 3 are loosely fitted in pole supporting members 13, 14 of a pole fixing device by a pipe material. A lock pin is fixed to the lower end of the pole supporting members 13, 14 in the radial direction, and the lower end of a small diameter part of the pole is formed with an axial directional notch at a predetermined length, in which the locking pin is loosely fitted. The upper end of this notch is formed with a circumferential directional notch at a predetermined length, in which the locking pin is loosely fitted. After the axial directional notch of the small diameter part of the pole is engaged with the lock pin provided in the lower end of the pole supporting members 13, 14, the small diameter part of the pole is twisted for locking in relation to both the pole supporting members. Two main rope stretch parts 3e are fixed to the upper end of the pole in the radial direction and the right-angle direction to connect a protecting net 6 to the main ropes 4 stretched in multiple directions. Safety of workers 5 on the roof is thereby secured .

11/5/18 (Item 18 from file: 347)
DIALOG(R)File 347:JAPIO
(c) 2003 JPO & JAPIO. All rts. reserv.

04817230 **Image available**
GONDOLA DEVICE FOR MAINTENANCE OF MULTISTORY PARKING DEVICE AND
INSTALLING METHOD THEREFOR

PUB. NO.: 07-109830 [JP 7109830 A]
 PUBLISHED: April 25, 1995 (19950425)
 INVENTOR(s): SONE MASAO
 AOKI TAKEJI
 APPLICANT(s): NISSEI LTD [368842] (A Japanese Company or Corporation), JP
 (Japan)
 APPL. NO.: 05-258454 [JP 93258454]
 FILED: October 15, 1993 (19931015)
 INTL CLASS: [6] E04G-003/10
 JAPIO CLASS: 27.2 (CONSTRUCTION -- Building); 26.9 (TRANSPORTATION --
 Other

ABSTRACT

PURPOSE: To use a gondola for maintenance and inspection of a multistory parking **device**, install this gondola speedily on the multistory parking **device** without **securing** a special space, and reduce the equipment cost sharply.

CONSTITUTION: Fixing holes 21 are formed on both sides of a tie rod 15 of an elevator lift 12, on the one hand, a winder and the operation panel are enclosed in a gondola 25, and hooks 23 to be fixed to the respective fixing holes 21 of the tie rod 15 through pins 24 so as to be **mountable** and demountable, are arranged on the tips of wire **ropes** 22 wound round a winder. Usually, the gondola 25 is removed, and a maintenance and inspection worker stores it, and every time of maintenance and inspection, it is **mounted** on an elevator lift 12 of a multistory parking **device** 10, and is raised and lowered on a raising and lowering passage 11.

11/5/19 (Item 19 from file: 347)
 DIALOG(R)File 347:JAPIO
 (c) 2003 JPO & JAPIO. All rts. reserv.

04722255 **Image available**
 INCLINED DOME SCAFFOLDING **DEVICE**

PUB. NO.: 06-193255 [JP 6193255 A]
 PUBLISHED: July 12, 1994 (19940712)
 INVENTOR(s): TANAKA HISAFUMI
 APPLICANT(s): AOKI CORP [350824] (A Japanese Company or Corporation), JP
 (Japan)
 APPL. NO.: 04-258022 [JP 92258022]
 FILED: September 28, 1992 (19920928)
 INTL CLASS: [5] E04G-003/14 ; E04G-001/36 ; E04G-003/16
 JAPIO CLASS: 27.2 (CONSTRUCTION -- Building); 37.1 (**SAFETY** -- Industrial

ABSTRACT

PURPOSE: To facilitate the outside maintenance of a dome and improve the **safety** of work by arranging a scaffolding assembly almost on the whole periphery of the outside of an inclined dome, connection-arranging a wire **rope device** on the top part and both the sides of the scaffolding assembly opposed to the dome, and allowing the scaffolding assembly to travel by a one-shaft three-trunk winch.

CONSTITUTION: A scaffolding assembly 2 in the assembly of horizontal scaffoldings is arranged outside an inclined dome 1. A wire **rope** 4 is connected with a winch 3 arranged at the top part of the dome 1, and traveling-enabled in the vertical direction. In order to allow the scaffolding assembly 2 to travel vertically, a sash frame having a rail member is attached on the body of the dome 1, and a traveling supporting

device is installed on the scaffolding assembly 2. Accordingly, even in case of a large-scale inclined dome, the outside maintenance work can be facilitated, and the economical scaffolding **device** can be constructed, **securing** the excellent **safety** .

11/5/20 (Item 20 from file: 347)
DIALOG(R)File 347:JAPIO
(c) 2003 JPO & JAPIO. All rts. reserv.

04457412 **Image available**
ROOFING METHOD AND ROOFING **DEVICE** USING IT

PUB. NO.: 06-101312 [JP 6101312 A]
PUBLISHED: April 12, 1994 (19940412)
INVENTOR(s): IKEDA YUKITO
APPLICANT(s): MIHO DOKEN KK [000000] (A Japanese Company or Corporation),
JP (Japan)
APPL. NO.: 04-273792 [JP 92273792]
FILED: September 16, 1992 (19920916)
INTL CLASS: [5] E04D-015/00; **E04G-003/12**
JAPIO CLASS: 27.2 (CONSTRUCTION -- Building); 37.1 (**SAFETY** -- Industrial
JOURNAL: Section: M, Section No. 1638, Vol. 18, No. 374, Pg. 25, July
14, 1994 (19940714)

ABSTRACT

PURPOSE: To efficiently and safely carry out roofing work by temporarily loading materials and a worker on a working **device** that can be moved on the roof structural members built nearly in the horizontal direction as rails, and by moving it from to the one side of the roof to the other side thereof.

CONSTITUTION: A working **device** 1 is made up of a frame 2, structural members 9, rolling rollers 5, guide rollers 6, and wire **ropes** . The working **device** 1 is placed on the one end 20X of a roof, and a worker temporarily loads materials on the loading surfaces 4a of a stepped loading body 4, and also the worker himself gets on the loading body. Then, the worker takes hold of a flexible wire 7 and pulls it for moving the **device** 1 from the end 20X of the roof to the other end 20Y, and stops it as the occasion may demand for carrying out the bolt tightening work, painting work, bed plate sticking work or roofing- paper and roofing-material sticking work. Thus, work load can be reduced, and expenses can be saved, and also the enhancement in work efficiency and **safety** can be **secured** .

11/5/21 (Item 21 from file: 347)
DIALOG(R)File 347:JAPIO
(c) 2003 JPO & JAPIO. All rts. reserv.

03604383 **Image available**
INSTALLING METHOD FOR ELEVATOR

PUB. NO.: 03-267283 [JP 3267283 A]
PUBLISHED: November 28, 1991 (19911128)
INVENTOR(s): IWATA SHINICHI
APPLICANT(s): MITSUBISHI ELECTRIC CORP [000601] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 02-069421 [JP 9069421]
FILED: March 19, 1990 (19900319)
INTL CLASS: [5] B66B-007/00; **E04G-003/10**

JAPIO CLASS: 26.9 (TRANSPORTATION -- Other); 27.2 (CONSTRUCTION --
Building)
JOURNAL: Section: M, Section No. 1216, Vol. 16, No. 83, Pg. 44,
February 28, 1992 (19920228)

ABSTRACT

PURPOSE: To **secure** such an installing method that is **safety** and excellent in working property even in the case of a multistory or skyscraping building by performing work in moving each of temporary movable workbenches successively till a machine room is completed, and after the machine room is completed, performing the work in moving those of permanent cage frames and movable workbenches.

CONSTITUTION: A horizontal cross beam 16 is set to a supporting beam 15 till a machine room is completed, each movable workbench 14 is assembled in an elevator shaft 1, and a motor-driven winch 4 and the movable workbench 14 are coupled by a wire **rope** 4a via a return carriage 17, moving the movable workbench 14 up and down, and installation of various **apparatuses** and wiring work are carried out in the elevator shaft 1. Progressing in construction, the horizontal crossbeam 16 is set to a supporting beam 19 of the upper shaft 1, and the movable workbench 14 and the motor-driven winch 4 are coupled by the wire **rope** 4a via the return carriage 17, moving the workbench 14 in the shaft 1, then these operations are repeated. When the machine room 2 is completed in an uppermost part of the shaft 1, a permanent cage frame 22 is assembled in the upper shaft 1 of the return carriage 17 on the horizontal crossbeam 16, and this permanent cage frame 11 and a balance weight 20 are coupled by a hoisting **rope** 21.

11/5/22 (Item 22 from file: 347)
DIALOG(R)File 347:JAPIO
(c) 2003 JPO & JAPIO. All rts. reserv.

03214765 **Image available**
SCAFFOLDLESS WALL SURFACE PROCESSING METHOD AND **DEVICE**

PUB. NO.: 02-190265 [JP 2190265 A]
PUBLISHED: July 26, 1990 (19900726)
INVENTOR(s): KIMURA MOTOMU
HARADA SHUNICHI
MORIOKA JUNICHI
MORI HIROMITSU
NISHIMURA FUMIO
ATSUJI IWAO
SHIBAZAKI KAZUHIKO
KAMIYADA MINORU
APPLICANT(s): KAWATETSU TECHNO RES CORP [489155] (A Japanese Company or Corporation), JP (Japan)
KAWATETSU KIZAI KOGYO KK [325503] (A Japanese Company or Corporation), JP (Japan)
MITSUBISHI KAKOKI KAISHA LTD [351402] (A Japanese Company or Corporation), JP (Japan)
ATSUJI TEKKO KK [456889] (A Japanese Company or Corporation), JP (Japan)
KASHIWABARA TOKEN KOGYO KK [000000] (A Japanese Company or Corporation), JP (Japan)
TOSO KIKI SANGYO KK [000000] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 01-007682 [JP 897682]
FILED: January 18, 1989 (19890118)
INTL CLASS: [5] B24C-003/06; A47L-011/38; **E04G-023/00**

JAPIO CLASS: 25.2 (MACHINE TOOLS -- Cutting & Grinding); 27.2
(CONSTRUCTION -- Building); 28.1 (SANITATION -- Sanitary
Equipment); 36.1 (LABOR SAVING DEVICES -- Industrial Robots
JOURNAL: Section: M, Section No. 1035, Vol. 14, No. 473, Pg. 60,
October 16, 1990 (19901016)

ABSTRACT

PURPOSE: To mechanize a wall surface processing work in a scaffoldless state and to improve wall surface finishing quality by a method wherein a traverse truck is temporarily **mounted** on a guide frame erected along the upper wall surface of a wall to be processed, and a wall surface processing **device** is hung down from the truck through a **rope** by means of a winch.

CONSTITUTION: A guide frame support is **mounted** on the upper wall surface of a wall 1 to be processed made of a steel or concrete, and a guide frame 21 is erected to the guide frame support. A traverse truck 6 is temporarily **mounted** to the guide frame 21, and is stopped in a position through traverse. A wall surface processing **device** 2, e.g. a wall surface adsorption self-running paint or blast head, is hung down from the traverse truck 6 through a **rope** 8 by means of a lift speed variable winch 7 **secured** to the truck 6. The wall surface processing **device** 2 is longitudinally run along the wall 1 as the elevation speed of the self-running wall surface processing **device** 2 is synchronized with the lift speed of the winch 7 to perform wall surface processing by using paint or blast.

11/5/23 (Item 1 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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015099069 **Image available**

WPI Acc No: 2003-159586/200316

Related WPI Acc No: 2003-159584; 2003-159585

XRPX Acc No: N03-125993

Safety apparatus for fall arrest system, has pulley system with rope having ends secured to loops of pulley sets, such that length of rope received by pulley sets is adjustable based on inverse relationship

Patent Assignee: MURTEN S (MURT-I)

Inventor: MURTEN S

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
GB 2377966	A	20030129	GB 200213037	A	20020607	200316 B

Priority Applications (No TypeDate): GB 200113933 A 20010608

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
GB 2377966	A	19	E04G-021/32	

Abstract (Basic): GB 2377966 A

NOVELTY - The **safety apparatus** has a pulley system which provides an operative connection between the support sections. A pulley **rope** (402) has one end **secured** to the loop of a first pulley set and another end **secured** to the loop of a second pulley set. The length of the **rope** received by the pulley sets is adjustable according to an inverse relationship.

USE - For use within a fall arrest system. Used for the erection of a structure.

ADVANTAGE - Enables adjusting the height of the **safety apparatus**

while erection operation is taking place. Enables performing work operations safely at all times. Ensures that operatives are supported at all times in case of a fall. Allows expansion and contraction of telescoping assembly by manual operation of a single **rope** without **rope** being pulled away from the assembly. Improves operativeness of the **safety apparatus**.

DESCRIPTION OF DRAWING(S) - The figure shows the explanatory view of the adjustment of the support system.

Pulley **rope** (402)

pp; 19 DwgNo 4/6

Title Terms: **SAFETY ; APPARATUS ; FALL; ARREST; SYSTEM; PULLEY; SYSTEM; ROPE ; END; SECURE ; LOOP; PULLEY; SET; LENGTH; ROPE ; RECEIVE; PULLEY; SET; ADJUST; BASED; INVERSE; RELATED**

Derwent Class: Q46

International Patent Class (Main): **E04G-021/32**

File Segment: EngPI

11/5/24 (Item 2 from file: 350) ,
DIALOG(R)File 350:Derwent WPIX
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015044704 **Image available**

WPI Acc No: 2003-105220/200310

XPX Acc No: N03-084009

Safety net support device used in construction or maintenance industries has wire hooks facing downwards and attached to net using second series of hooks which face in opposite direction to next

Patent Assignee: SHIRE PRECAST ERECTION LTD (SHIR-N)

Inventor: CARDEN A

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
GB 2376975	A	20021231	GB 200113153	A	20010531	200310 B

Priority Applications (No Type Date): GB 200113153 A 20010531

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
GB 2376975	A		14	E04G-021/32	

Abstract (Basic): GB 2376975 A

NOVELTY - The **safety net support device** comprises an elongate tubular metal member (10) which may be of hollow construction having a central aperture (11). The **device** is attached to an elongate support such as a wire **rope** by a series of wire hooks (12-15,19,20) spaced apart or by threading the wire **rope** through the central aperture. The hooks are all orientated in the same direction, facing downwards, except the end hooks which face in the opposite direction. The **device** is attached to the net using a second series of hooks (22-29) where each hook faces in the opposite direction to the next. A net (39) is supported along all of its edges by using the **device** and a support rail or wire (40) is carried at a number of **anchor** points (41-50).

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following: a method of supporting a sheet element along an edge portion, and a **safety apparatus**.

USE - Used in construction or maintenance industries for use as a fall-arrest appliance.

ADVANTAGE - Is easy and quick to set up while being strong and safe.

DESCRIPTION OF DRAWING(S) - The figures show a perspective view of

the **safety** net device , and a diagrammatic plan view illustrating the **safety** net supported by use of the device .

elongate member (10)
central aperture (11)
first series of wire hooks (12-15,19,20)
second series of hooks (22-29)
safety net (39)
support rail (40)
anchor points (41-50)
pp; 14 DwgNo 1, 6/6

Title Terms: **SAFETY** ; NET; SUPPORT; **DEVICE** ; CONSTRUCTION; MAINTAIN;
INDUSTRIAL; WIRE; HOOK; FACE; DOWN; ATTACH; NET; SECOND; SERIES; HOOK;
FACE; OPPOSED; DIRECTION
Derwent Class: Q46
International Patent Class (Main): **E04G-021/32**
File Segment: EngPI

11/5/25 (Item 3 from file: 350)

DIALOG(R)File 350:Derwent WPIX
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014999036 **Image available**
WPI Acc No: 2003-059551/200305
XRPX Acc No: N03-046170

Safety device for operations on horizontal surfaces in construction works has mast releasably connected by its lower end to said anchoring element and attached to a rope by its upper end

Patent Assignee: ENCOFRADOS ALSINA SA J (ENCO-N)
Inventor: XAMMAR BOVE P

Number of Countries: 100 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200299226	A1	20021212	WO 2002ES233	A	20020517	200305 B
ES 2178610	A1	20021216	ES 20011283	A	20010604	200310

Priority Applications (No Type Date): ES 20011283 A 20010604

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200299226 A1 S 28 E04G-021/32

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA
CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN
IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ
OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU
ZA ZM ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW

ES 2178610 A1 E04G-021/32

Abstract (Basic): WO 200299226 A1

NOVELTY - The **device** comprises means for attaching an operator to a fixed element of the construction work, said means including a **harness** or **safety** belt and a snap ring; an **anchoring** element (2) suitable for insertion into a concrete mass (3) and becoming integral with said mass after setting, which connects the **device** to said fixed element of the construction work, and a mast (4) releasably connected by its lower end to said **anchoring** element and attached to a **rope** (5) by its upper end, said **rope** being connected to the above-mentioned attaching means by its lower end (7) and rotatable relative to the vertical axis (8) of the mast. Once the concrete has

set, the operator is firmly held and can freely move within an essentially circular field of action (24) about said vertical axis. The invention can be used to provide **safety** during horizontal formwork operations.

DESCRIPTION OF DRAWING(S) - **anchoring** element (2)
concrete mass (3)
mast (4)
rope (5)
lower end (7)
vertical axis (8)
circular field of action (24)
pp; 28 DwgNo 3/15

Title Terms: **SAFETY** ; **DEVICE** ; OPERATE; HORIZONTAL; SURFACE; CONSTRUCTION
; WORK; MAST; RELEASE; CONNECT; LOWER; END; **ANCHOR** ; ELEMENT; ATTACH;
ROPE ; UPPER; END

Derwent Class: P35; Q46

International Patent Class (Main): **E04G-021/32**

International Patent Class (Additional): A62B-035/00

File Segment: EngPI

11/5/26 (Item 4 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014652879 **Image available**

WPI Acc No: 2002-473583/200251

XRPX Acc No: N02-373921

Safety apparatus for harness line attachment and aiding balance of workers on narrow elevated horizontal piling mast or beam surfaces comprises an upstanding frame on rollers engaged to tool tracks or beam flanges

Patent Assignee: CEMENTATION FOUND SKANSKA LTD (CEME-N); KVAERNER

CEMENTATION FOUND LTD (KVAE-N)

Inventor: BUXTON D; GOLDIE J D; HOLLAND M

Number of Countries: 027 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
GB 2368878	A	20020515	GB 200027777	A	20001114	200251 B
US 20020056590	A1	20020516	US 2001987454	A	20011114	200251
EP 1205219	A2	20020515	EP 2001309388	A	20011106	200251

Priority Applications (No Type Date): GB 200027777 A 20001114

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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GB 2368878	A		23	E04G-021/32	
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US 20020056590	A1			A62B-035/04	
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EP 1205219	A2 E			A62B-035/00	
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Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT
LI LT LU LV MC MK NL PT RO SE SI TR

Abstract (Basic): GB 2368878 A

NOVELTY - The **safety** support frame includes two lightweight A-frames separated by upper and middle cross members and supported on four roller wheels. The frame also includes a connection point for a **safety harness** line. The wheels have a pivoting foot pedal cam-type brake and are held to the beam flange, rail, or edge of a horizontal piling mast by any suitable method. The **safety** frame may take other basic forms, such as four uprights on rollers with connecting rails around the user.

USE - For **safety** of personnel preparing cathead sheaves and reeving wire **ropes** and rotary head on horizontal piling mast or similar, prior to erection. Also for work on large high level I-beams and box girders.

ADVANTAGE - The travelling support frame provides balance and security, as well as a close **harness** line **anchorage** at all times and positions on a beam. It is always close to hand of the user.

DESCRIPTION OF DRAWING(S) - A view of the **safety apparatus** mounted on a section of beam.

Safety frame overlap of beam flange (20)

Beam or horizontal mast edge flanges (28,29)

pp; 23 DwgNo 7/10

Title Terms: **SAFETY ; APPARATUS ; HARNESS ; LINE; ATTACH; AID; BALANCE; WORK; NARROW; ELEVATE; HORIZONTAL; PILE; MAST; BEAM; SURFACE; COMPRISE; UPSTANDING; FRAME; ROLL; ENGAGE; TOOL ; TRACK; BEAM; FLANGE**

Derwent Class: P35; Q46

International Patent Class (Main): A62B-035/00; A62B-035/04; **E04G-021/32**

File Segment: EngPI

11/5/27 (Item 5 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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014531744 **Image available**

WPI Acc No: 2002-352447/200238

XRPX Acc No: N02-276924

Sledge-shaped hoist device for working and accessing steeply angled shafts in mining and civil engineering rock excavation work has a cable-hauled frame with runners

Patent Assignee: MACHINES ROGER INT INC (MACH-N)

Inventor: MASSE R F

Number of Countries: 097 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200233220	A1	20020425	WO 2001CA1458	A	20011016	200238 B
AU 200213690	A	20020429	AU 200213690	A	20011016	200255
US 6505709	B1	20030114	US 2000688219	A	20001016	200313

Priority Applications (No Type Date): US 2000688219 A 20001016

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200233220 A1 E 36 E21F-013/00

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PH PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200213690 A E21F-013/00 Based on patent WO 200233220

US 6505709 B1 E04G-001/18

Abstract (Basic): WO 200233220 A1

NOVELTY - The steeply angled shaft or raise (3) may be used for access between levels, extracting materials, ventilation, or services. The access hoist **device** (1) has a base frame (9) with sledging runners supported on hoist **rope** (99) and winched pulley system (31). A lower working or load platform (11) and protective roof (33) are pivoted to the base frame and supported by pin and hole telescopic adjustable stays (13,37). Hoist back-up **safety anchors** and cables

(101) are included.

USE - For initial excavation and wall trimming of the shaft, access to a lower level, removal of spoil or ore, and working access for installation of ventilation and service equipment.

ADVANTAGE - Less costly and more efficient than scaffolding systems or Alimac(RTM) type hoisting equipment. Work platform and protective roof are easily adaptable to the angle of the shaft. Provides a quick and easily installed safe work platform.

DESCRIPTION OF DRAWING(S) - Side view of the sledge hoist device at the top of a raise.

Access hoist device (1)
Top end of angled shaft or raise (3)
Base frame (9)
Load platform (11)
Adjustable telescopic support stays (13,37)
Winch and pulley hoist system (31)
Protective roof (33)
Safety anchors and cables (101)
pp; 36 DwgNo 1/14

Title Terms: SLEDGE; SHAPE; HOIST; **DEVICE** ; WORK; ACCESS; STEEP; ANGLE; SHAFT; MINE; CIVIL; ENGINEERING; ROCK; EXCAVATE; WORK; CABLE; HAUL; FRAME ; RUNNER

Derwent Class: P35; Q46; Q49

International Patent Class (Main): **E04G-001/18** ; E21F-013/00

International Patent Class (Additional): A62B-009/04

File Segment: EngPI

11/5/28 (Item 6 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014421226 **Image available**

WPI Acc No: 2002-241929/200229

XRPX Acc No: N02-186772

Method for fixing a roof anchor comprises drilling two holes one through the cladding and purlin the other the cladding inserting a tool with an anchoring block positioning it under the purlin and screwing in a roofing bolt

Patent Assignee: POLDMAA A (POLD-I)

Inventor: POLDMAA A

Number of Countries: 096 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200214625	A1	20020221	WO 2001AU1013	A	20010815	200229 B
AU 200183678	A	20020225	AU 200183678	A	20010815	200245

Priority Applications (No Type Date): AU 20009422 A 20000815

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200214625	A1	E	20	E04G-021/32	

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200183678 A E04G-021/32 Based on patent WO 200214625

Abstract (Basic): WO 200214625 A1

NOVELTY - A method for **securing** a roof **anchor** to a roof structure has the steps of; 1) drilling a hole through the roof cladding and supporting purlin or rafter(30) 2) drilling a hole adjacent to the first drilled hole just clear of the purlin 3) providing a threaded **anchor** block(20)removably attached to formed hand **tool** (40) 4) passing the **anchor** block though the second hole and using the hand **tool** positioning it under the purlin flange and aligning previous drill holes with that in the block 5) screwing in an **anchor** bolt together with lock nut and weather shield and removing the hand **tool**

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for a roofing **anchor** bolt comprising in sequence a threaded stem a tapered shank and desired head typically an eye for **securing** a **safety** rope or **harness**

USE - To fix **anchor** bolts to existing roof structures without disturbing the cladding and any roof liners or the need for internal scaffolding

ADVANTAGE - A simple fixing method which allows retro fitting of special roofing bolts required for supporting water heaters thermal panels hooks and eyes for **safety** equipment and the like

DESCRIPTION OF DRAWING(S) - The drawing shows an **anchoring** plate being positioned under a purlin

anchor block (20)

purlin (30)

hand **tool** (40)

pp; 20 DwgNo 6/8

Title Terms: METHOD; FIX; ROOF; **ANCHOR** ; COMPRISE; DRILL; TWO; HOLE; ONE; THROUGH; CLAD; PURLIN; CLAD; INSERT; **TOOL** ; **ANCHOR** ; BLOCK; POSITION; PURLIN; SCREW; ROOF; BOLT

Derwent Class: Q46

International Patent Class (Main): **E04G-021/32**

File Segment: EngPI

11/5/29 (Item 7 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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013567257 **Image available**

WPI Acc No: 2001-051464/200107

XRPX Acc No: N01-039511

Device **to prevent accidental falling from flat roof; has support device with eye part fixed on two construction bodies on top of each other, having low heat conductivities and spaced fixing anchors**

Patent Assignee: FISCHER GMBH KLAUS (FISC-N)

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 20017983	U1	20001214	DE 2000U2017983	U	20001020	200107 B

Priority Applications (No Type Date): DE 2000U2017983 U 20001020

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 20017983	U1		13	E04G-021/32	

Abstract (Basic): DE 20017983 U1

NOVELTY - The **device** (10) has a support **device** to be fixed on a flat roof with an eye part (70) for a **safety** rope with a spring hook. A first construction body (14) with low heat conductivity is fixed with **anchor** dowels (28) on a concrete layer (12) of the roof. A second construction body (16) with low heat conductivity is fixed with

rod **anchors** (50) to the first construction body. The **anchor** dowels and rod **anchors** are spaced apart from each other.

DETAILED DESCRIPTION - An inflexible third construction body (20) with the eye part is fixed to the second construction body.

USE - To prevent accidental falling from flat roof.

ADVANTAGE - Prevents formation of heat bridges.

DESCRIPTION OF DRAWING(S) - The figure shows a schematic cross-section through the **device** fitted on a flat roof.

Device (10)

Concrete layer (12)

First construction body of **device** (14)

Second construction body of **device** (16)

Vapour barrier (18)

Third construction body of **device** (20)

Heat insulation (22)

Wooden plates (24,30-40)

Square base (26)

Anchor dowel (28)

Conically inclined outer edge (42)

Recesses (44)

Longitudinal axes of recesses (46)

Longitudinal axes of **anchor** dowels (48)

Rod **anchors** (50)

Sleeve (54)

Conical point (60)

Opening (62)

Plate (64)

Screw (66)

Screw head (68)

Eye part (70)

Fixing flange (74)

Nut (76)

Recesses (80)

Longitudinal axes of recesses (82)

Diameter of recesses (86)

Diameter of recess for **anchor** dowel (90)

Recess or **anchor** dowel (92)

Nut (94)

Inclined edge (98)

pp; 13 DwgNo 1/2

Title Terms: **DEVICE** ; PREVENT; ACCIDENT; FALL; FLAT; ROOF; SUPPORT;
DEVICE ; EYE; PART; FIX; TWO; CONSTRUCTION; BODY; TOP; LOW; HEAT;
CONDUCTING; SPACE; FIX; **ANCHOR**

Derwent Class: Q45; Q46

International Patent Class (Main): **E04G-021/32**

International Patent Class (Additional): E04D-013/12

File Segment: EngPI

11/5/30 (Item 8 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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013122623 **Image available**

WPI Acc No: 2000-294494/200026

XRFX Acc No: N00-220888

Fall protection arrangement for electricity pylons and similar structures
has connecting arrangement connected to harness and rope so sudden
drop only occurs along short section of rope

Patent Assignee: POLSTER B (POL-S-I); PREISING P (PREI-I)

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 29922278	U1	20000223	DE 99U2022278	U	19991218	200026 B

Priority Applications (No Type Date): DE 99U2022278 U 19991218

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
DE 29922278	U1	20	E04G-021/32	

Abstract (Basic): DE 29922278 U1

NOVELTY - The arrangement has a security **harness** (SG) that the person (P) carries and that has or makes a **secure** connection to the person in the event of a fall. A dynamic **safety rope** (DS) is indirectly connected at least one end to a stop point (AP) and leads from a first attachment point (UP) along the pylon or a **device** attached to it. A connecting arrangement (VM) is connected to the **harness** and **rope** so that a sudden drop is only possible along a short section of **rope**.

USE - For electricity pylons and similar structures

ADVANTAGE - Enables safe ascent of and working on grid masts, etc.

DESCRIPTION OF DRAWING(S) - The drawing shows a schematic representation of a pylon with a **safety** arrangement

safety harness (SG)

attachment point (UP)

person (P)

connecting arrangement (VM)

safety rope (DS)

stop point (AP)

pp; 20 DwgNo 1/4

Title Terms: FALL; PROTECT; ARRANGE; ELECTRIC; PYLON; SIMILAR; STRUCTURE; CONNECT; ARRANGE; CONNECT; **HARNES** ; **ROPE** ; SO; SUDDEN; DROP; OCCUR; SHORT; SECTION; **ROPE**

Derwent Class: P35; Q46; X12

International Patent Class (Main): **E04G-021/32**

International Patent Class (Additional): A62B-001/06; E04H-012/10

File Segment: EPI; EngPI

11/5/31 (Item 9 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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012766119 **Image available**

WPI Acc No: 1999-572247/199948

XRPX Acc No: N99-421670

Safety system for roof top workers

Patent Assignee: GUTTER-VAC BUNDABERG PTY LTD (GUTT-N)

Inventor: BALLANTYNE W

Number of Countries: 086 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9949154	A1	19990930	WO 99AU197	A	19990319	199948 B
AU 9930184	A	19991018	AU 9930184	A	19990319	200009

Priority Applications (No Type Date): AU 982468 A 19980320

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
WO 9949154	A1	E	25 E04G-021/32	

Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN

CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ
LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK
SL TJ TM TR TT UA UG US UZ VN YU ZA ZW
Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW
AU 9930184 A E04G-021/32 Based on patent WO 9949154

Abstract (Basic): WO 9949154 A1

NOVELTY - A roof fixing member (10) comprising a T-shape roof **anchor** , is fixed to one side bottom edge of a roof (2). Roof top worker (1) who works on other side of the roof, wears a **harness** (3). A **safety rope** (4) is connected between the roof **anchor** and the **harness** . The **safety rope** has sufficient length to permit the roof top worker to move over the roof.

DETAILED DESCRIPTION - The **safety rope** is adjustably connected to the **harness** to adjust the length according to the roof structure. The T-shaped roof **anchor** consists of a shank portion and a crosspiece. The crosspiece is fixed to the bottom edge of the roof cladding by an angle piece. The angle piece is fixed to a threaded stud of the crosspiece through an aperture and tightened by a wing nut. INDEPENDENT CLAIMS are also included for the following:

- (a) roof **anchor** ;
- (b) clamping mechanism of rafter clamp

USE - For workers on roof or similar elevated locations. For small roof jobs such as roof spot repair installation of ventilator, etc.

ADVANTAGE - The roof **anchor** is easily and economically manufactured by simplified composition. The roof **anchor** is offered in variable sizes to accommodate the roof cladding of different thickness. Transportation and handling works are simplified by offering the roof **anchor** in compact disk. The roof **anchor** is quickly and easily installed on the roof without needing special **tools** . The use of perimeter scaffolding is avoided.

DESCRIPTION OF DRAWING(S) - The figure shows the schematic elevation view showing the **safety** gear arrangement on roof.

- Roof top worker (1)
- Roof (2)
- Harness** (3)
- Safety rope** (4)
- Roof fixing member (10)

pp; 25 DwgNo 1/10

Title Terms: **SAFETY** ; SYSTEM; ROOF; TOP; WORK

Derwent Class: Q46

International Patent Class (Main): E04G-021/32

File Segment: EngPI

11/5/32 (Item 10 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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012541655 **Image available**

WPI Acc No: 1999-347761/199929

XRPX Acc No: N99-259983

Anchor device for a safety rope especially ropes used in building harness safety ropes

Patent Assignee: POLDMAA A (POLD-I)

Inventor: POLDMAA A

Number of Countries: 084 Number of Patents: 007

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
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Bode Akintola 08-Apr-03

WO 9927213	A1	19990603	WO 98AU968	A	19981120	199929	B
AU 9913268	A	19990615	AU 9913268	A	19981120	199944	
EP 1117884	A1	20010725	EP 98956716	A	19981120	200143	
			WO 98AU968	A	19981120		
US 20010025464	A1	20011004	WO 98AU968	A	19981120	200161	
			US 2001800018	A	20010305		
JP 2002509999	W	20020402	WO 98AU968	A	19981120	200225	
			JP 2000522340	A	19981120		
AU 750758	B	20020725	AU 9913268	A	19981120	200260	
NZ 510279	A	20021025	NZ 510279	A	19981120	200274	
			WO 98AU968	A	19981120		

Priority Applications (No Type Date): AU 985682 A 19980903; AU 97437 A 19971120

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 9927213	A1	E	23	E04G-021/32	
Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW					
Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW					
AU 9913268	A			E04G-021/32	Based on patent WO 9927213
EP 1117884	A1	E		E04G-021/32	Based on patent WO 9927213
Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					
US 20010025464	A1			E04B-001/18	Cont of application WO 98AU968
JP 2002509999	W		28	E04G-021/32	Based on patent WO 9927213
AU 750758	B			E04G-021/32	Previous Publ. patent AU 9913268
					Based on patent WO 9927213
NZ 510279	A			E04G-021/32	Based on patent WO 9927213

Abstract (Basic): WO 9927213 A1

NOVELTY - The **anchor** includes a receiver (12) for receiving the **rope** and a **securing device** (14,16) such as a lock nut, for **securing** the receiver to a **building's structure** (39). Also included is a **mounting** (18), which leads to side wings (34) which can be attached either side of a **roof** truss.

USE - None given.

ADVANTAGE - Provides a **secure anchor** point for workers to attach their **harness** to.

DESCRIPTION OF DRAWING(S) - The figure shows the **device** mounted on the apex of a **roof**.

receiver (12)
locking nut (14,16)
mounting (18)
side wings (34)
pp; 23 DwgNo 4/15

Title Terms: **ANCHOR ; DEVICE ; SAFETY ; ROPE ; ROPE ; BUILD ; HARNESS ; SAFETY ; ROPE**

Derwent Class: P35; Q43; Q44; Q46

International Patent Class (Main): **E04B-001/18 ; E04G-021/32**

International Patent Class (Additional): A62B-001/18; **E04C-003/02**

File Segment: EngPI

11/5/33 (Item 11 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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012480726 **Image available**
WPI Acc No: 1999-286834/199924
XRPX Acc No: N99-214128

Support clip bar for supporting hoses, cables etc. on a pitched roof

Patent Assignee: BOND W R (BOND-I)

Inventor: BOND W R

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 5896720	A	19990427	US 97912301	A	19970808	199924 B

Priority Applications (No Type Date): US 97912301 A 19970808

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 5896720	A		9	E04C-005/12	

Abstract (Basic): US 5896720 A

NOVELTY - The clip has an elongated substantially flat element (10), with a raised portion (12) at one end, to which at least one spring clip (15,16) is **secured** on its upper surface (11). The flat element has at least one aperture or slot (13,14) near one end with which the clip may be **secured** to a roof using a fastener.

USE - For supporting, fixing or stabilizing air hoses, water hoses, electrical cords, **safety ropes**, cables etc. on a pitched roof of a building or house.

ADVANTAGE - Prevents hoses, cables etc. as well as attached **tools** from sliding down and off the roof as well as preventing them from interfering with workers or roofers working on the roof. Clips can be easily installed and removed with a conventional hammer.

DESCRIPTION OF DRAWING(S) - A perspective view of the support clip bar.

Flat element (10)
Raised end portion (12)
Aperture (13)
Slot (14)
Spring clips (15,16)
pp; 9 DwgNo 1/11

Title Terms: SUPPORT; CLIP; BAR; SUPPORT; HOSE; CABLE; PITCHED; ROOF

Derwent Class: Q44

International Patent Class (Main): **E04C-005/12**

File Segment: EngPI

11/5/34 (Item 12 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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011992756 **Image available**

WPI Acc No: 1998-409666/199835

XRPX Acc No: N98-319794

Supporting tool installed on prop, for e.g. safety rope - has U-shaped latching bodies, installed sideways at front surface of attachment base arranged on prop, in which latching bodies are oriented at opposite directions

Patent Assignee: OKABE KK (OKAB)

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 10169208	A	19980623	JP 96353201	A	19961216	199835 B

Priority Applications (No Type Date): JP 96353201 A 19961216

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 10169208	A		4	E04G-021/32	

Abstract (Basic): JP 10169208 A

The **tool** (1) has an attachment base (2) provided with a central bolt hole. The bolt hole is pierced by an attachment bolt (8) that fixes the attachment base to a prop (7).

U-shaped latching bodies (3,4) are installed sideways on the exposed surface of the attachment base, in which the latching bodies are oriented at opposite directions. A space, which accommodates the bolt head of the attachment bolt, is formed between the latching bodies.

ADVANTAGE - Simplifies mounting of supporting **tool** on prop. Minimises number of utilised components, thereby simplifying configuration. Simplifies tightening of nut that is engaged to bolt, since bolt head is prevented to rotate. Simplifies removal of e.g. **safety rope** secured to supporting **tool**.

Dwg.2/10

Title Terms: SUPPORT; **TOOL** ; INSTALLATION; PROP; **SAFETY** ; **ROPE** ; U-SHAPED; LATCH; BODY; INSTALLATION; SIDEWAYS; FRONT; SURFACE; ATTACH; BASE; ARRANGE; PROP; LATCH; BODY; ORIENT; OPPOSED; DIRECTION

Derwent Class: P35; Q46

International Patent Class (Main): **E04G-021/32**

International Patent Class (Additional): A62B-035/00; **E04G-003/10**

File Segment: EngPI

11/5/35 (Item 13 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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011973534 **Image available**

WPI Acc No: 1998-390444/199834

XRPX Acc No: N98-304630

Roof safety barrier which is permanently attached to roof - has cables which pass over pulleys, and which are tensioned by threaded rod and nut tensioning devices on corner posts

Patent Assignee: JACK FLOOR LTD (JACK-N); JAYEFF PROD LTD (JAYE-N)

Inventor: PRICE W F

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
GB 2321916	A	19980812	GB 982590	A	19980209	199834 B
GB 2321916	B	20010328	GB 982590	A	19980209	200118

Priority Applications (No Type Date): GB 972611 A 19970208

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
GB 2321916	A		22	E04G-021/32	
GB 2321916	B			E04G-021/32	

Abstract (Basic): GB 2321916 A

The **safety** barrier for a roof perimeter comprises cables or **ropes** (24) tensioned by means on corner support posts (16). The tensioning **devices** can be a threaded rod (28), extending perpendicularly from the post, and actuated via a nut (38), or a threaded rod (14) extending upwards within the post. Intermediate posts may be employed between the corner posts, and **devices** for

connecting the posts to the roof are disclosed.

USE - For worker **safety** during repair or construction of roofs.

ADVANTAGE - Eliminate need for temporary tubular hand barrier which damages the structural steel work, and prevents installation of the wall cladding unit after dismantling. Eliminates the need for ridge lines, **harnesses**, e.t.c. when working on the roof.

Dwg.2,12/1

4

Title Terms: ROOF; **SAFETY** ; BARRIER; PERMANENT; ATTACH; ROOF; CABLE; PASS;
PULLEY; TENSION; THREAD; ROD; NUT; TENSION; **DEVICE** ; CORNER; POST
Derwent Class: Q45; Q46
International Patent Class (Main): **E04G-021/32**
International Patent Class (Additional): E04D-013/12
File Segment: EngPI

11/5/36 (Item 14 from file: 350)

DIALOG(R)File 350:Derwent WPIX
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011954550 **Image available**
WPI Acc No: 1998-371460/199832
XRPX Acc No: N98-291113

Cleaning apparatus structure for cleaning outer wall surface of building rooftop - has second support body that includes L-shaped bodies which are fixed at upper edge of building rooftop wall and which support longitudinal pipes

Patent Assignee: MITSUI CONSTR CO LTD (MITL)
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 10148029	A	19980602	JP 96321074	A	19961115	199832 B

Priority Applications (No Type Date): JP 96321074 A 19961115

Patent Details:
Patent No Kind Lan Pg Main IPC Filing Notes
JP 10148029 A 10 E04G-003/08

Abstract (Basic): JP 10148029 A

The structure includes a movable work stand (30) guided along the length of two guide rails (45) that are installed on the periphery of a building rooftop. The movable work stand supports cleaning workers and has a support body (32) that is **secured** to the ends of **ropes** (20).

The **ropes** are extended from the inner building rooftop wall (3), through longitudinal round pipes (27). The round pipes are fixed at the ends of L-shaped members (26) that are fixed at the upper edge of the building rooftop wall to form a second support body.

ADVANTAGE - Ensures **safety** when cleaning of building rooftop outer wall surface, thereby improving cleaning efficiency. Allows moving and fixing work stand at predetermined positions along width of building rooftop outer walls due to guide rails.

Dwg.3/9

Title Terms: CLEAN; **APPARATUS** ; STRUCTURE; CLEAN; OUTER; WALL; SURFACE;
BUILD; SECOND; SUPPORT; BODY; L-SHAPED; BODY; FIX; UPPER; EDGE; BUILD;
WALL; SUPPORT; LONGITUDE; PIPE
Derwent Class: Q22; Q46
International Patent Class (Main): **E04G-003/08**
International Patent Class (Additional): B62B-003/00; **E04G-001/36** ;
E04G-003/10
File Segment: EngPI

11/5/37 (Item 15 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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011513645 **Image available**
WPI Acc No: 1997-490131/199746
XRPX Acc No: N97-408222

Mechanical anchor for pre-stressing or supporting building structure
- has stabilising medium, injected after insertion and positioning of
anchor head, which fills, compacts and secures area directly
surrounding anchor head

Patent Assignee: INT INTEC PATENT HOLDING ETAB (ITIN-N); INT INTEC PATENT
HOLDING ESTAB (ITIN-N)

Number of Countries: 003 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
AU 9716324	A	19970918	AU 9716324	A	19970314	199746 B
DE 19609914	A1	19971113	DE 1009914	A	19960314	199751
IL 120121	A	20010430	IL 120121	A	19970202	200134
DE 19609914	C2	20011018	DE 1009914	A	19960314	200161

Priority Applications (No Type Date): DE 1009914 A 19960314

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
AU 9716324	A		25	E04C-005/12	
DE 19609914	A1		11	E02D-005/54	
IL 120121	A			E02D-005/80	
DE 19609914	C2			E02D-005/54	

Abstract (Basic): AU 9716324 A

The mechanical **anchor** or **anchor** head is fluidically connected to a tube system or injection tube system. A stabilising medium, injected after insertion and positioning of the **anchor** head, fills, compacts and **secures** the area directly surrounding the **anchor** head and/or the tube system or individually selectable parts of the tube system or injection tube system. The **anchor** or **anchor** head is connected to a tension **device**.

The mechanical **anchor** head is in the form of a swivel-mounted plate **anchor**, which is connected rigidly to an eccentrically arranged tension **device** and is connected detachably to a pipe which can be subjected to impact. The tension **device** is in the form of a rod or **rope**.

ADVANTAGE - Pull-out strength or stability is significantly increased.

Dwg.1/8

Title Terms: MECHANICAL; **ANCHOR**; PRE; STRESS; SUPPORT; **BUILD**; **STRUCTURE**; STABILISED; MEDIUM; INJECTION; AFTER; INSERT; POSITION; **ANCHOR**; HEAD; FILL; COMPACT; **SECURE**; AREA; SURROUND; **ANCHOR**; HEAD
Derwent Class: Q42; Q44; Q46; Q49; Q61
International Patent Class (Main): E02D-005/54; E02D-005/80; **E04C-005/12**
International Patent Class (Additional): E02D-005/74; **E04G-023/00**; E21D-011/00; E21D-021/00; F16B-013/14
File Segment: EngPI

11/5/38 (Item 16 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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011388106 **Image available**

WPI Acc No: 1997-366013/199734

XRPX Acc No: N97-304162

Steel wire rope fixer and guide for buildings - comprises single or multiple eyelet principle in plate or disc for selective rope deflection off wall holder.

Patent Assignee: JAKOB AG (JAKO-N)

Inventor: LEHMANN R

Number of Countries: 007 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 785374	A1	19970723	EP 97810015	A	19970114	199734 B
DE 29724159	U1	20000427	DE 97U2024159	U	19970114	200027
			EP 97810015	A	19970114	

Priority Applications (No Type Date): CH 96112 A 19960116

Cited Patents: CH 248782; DE 29500657; EP 740088; FR 2564930; FR 657033; GB 1100041; GB 339522; US 3245649; US 3329455

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 785374	A1	G	14	F16G-011/00	

Designated States (Regional): AT CH DE FR GB IT LI

DE 29724159 U1 F16G-011/00 application EP 97810015

Abstract (Basic): EP 785374 A

The **device** (1) holds several steel wire **ropes** (21,22) led off in different directions, e.g. at a wall- **mounted** holding point and is **anchored** to the holding point by a closed eyelet (2), using a slotted eyelet (4) for the respective **ropes**. The **rope** sectors (21,22) lead off a continuous **rope** (20) as led through slot (7) into the slotted eyelet (4).

The closed and slotted eyelets are joined by a solid web piece (3) as part of the one-piece **device** (1). The two eyelets are positioned so they run at right angles to one another, using eyelet screws (9,11) for preference, releasably joined by a threaded sleeve (10).

ADVANTAGE - Controlled wire **rope** deployment offers multiple **rope** guidance and **anchorage** on **building** for e.g. decoration and greening aids.

Dwg.1,2/10

Title Terms: STEEL; WIRE; **ROPE** ; FIX; GUIDE; **BUILD** ; COMPRISE; SINGLE; MULTIPLE; EYELET; PRINCIPLE; PLATE; DISC; SELECT; **ROPE** ; DEFLECT; WALL; HOLD

Derwent Class: P13; Q43; Q64; Q68

International Patent Class (Main): F16G-011/00

International Patent Class (Additional): A01G-017/06; **E04B-001/24** ; F16S-003/08

File Segment: EngPI

11/5/39 (Item 17 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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010782185 **Image available**

WPI Acc No: 1996-279138/199629

XRPX Acc No: N96-234742

Device for securing people against falling from buildings - has heat insulating layer rigidly connected to inside of cover for tube with loop for attaching safety rope

Patent Assignee: BAUSYSTEME BOCKENEM GMBH (BAUS-N)

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 29603414	U1	19960613				199629 B

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 29603414	U1		13	E04G-003/14	

Abstract (Basic): DE 29603414 U

The **device** has a base plate (2) which is **anchored** on a building, and which is connected to a tube (3). The tube has a loop (5) at its free end, to which a **safety rope** can be attached, and is surrounded by a connecting sleeve (6). A cover (10) with an internal layer (12) of heat insulation, can be placed over the tube.

The layer is rigidly connected to the inside of the cover, and when the cover is not on the tube, its inner diameter (16) is smaller than the outer diameter (17) of the tube. The cover may also have a collar (15) which at least partly overlaps the sleeve.

ADVANTAGE - Prevents the heat insulating layer from being blown away when the cover is removed.

Dwg.1/1

Title Terms: **DEVICE** ; **SECURE** ; PEOPLE; FALL; BUILD; HEAT; INSULATE; LAYER ; RIGID; CONNECT; COVER; TUBE; LOOP; ATTACH; **SAFETY** ; **ROPE**

Derwent Class: Q45; Q46

International Patent Class (Main): **E04G-003/14**

International Patent Class (Additional): E04D-013/14

File Segment: EngPI

11/5/40 (Item 18 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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010662504 **Image available**

WPI Acc No: 1996-159458/199616

XRPX Acc No: N96-133679

Self contained portable lifeline retrieval device for buildings - has motor and drum drive assembly mounted on movable cart having davit arm pivotally mounted having rope grab clamp on take-up drum

Patent Assignee: AMERICAN SAFETY PROD INC (AMSA-N)

Inventor: BELANEY S D; BURLINGAME M J; KILADA A N

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 5498011	A	19960312	US 94190281	A	19940202	199616 B

Priority Applications (No Type Date): US 94190281 A 19940202

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 5498011	A		9	A62B-001/10	

Abstract (Basic): US 5498011 A

A motor and drum drive assembly is **mounted** on movable cart. adjustable davit arm is pivotally **mounted** on cart and is adapted to extend over edge of **roof** . lifeline extends around sheave **mounted** on outer end of davit arm and through **rope** grab clamp and then about take-up drum of drive assembly

The davit arm is formed by telescopically joined tubular arm

sections. motor is controlled by foot operated switch for rotating drum to retrieve lifeline. **safety** line is adapted to **secure** cart to rigid **structure** on **roof** in addition to wheel brake

ADVANTAGE - Is easily moved manually along **roof** of **building** for retrieving lifeline from along side of **building**, each time scaffold is moved to different position on side of **building**, and is relatively lightweight and rugged, yet which provides for rapid retrieval of lifeline each time scaffold is relocated along side of **building** in extremely safe and convenient manner.

Dwg.1/7A

Title Terms: SELF; CONTAIN; PORTABLE; LIFELINE; RETRIEVAL; **DEVICE**; **BUILD**; **MOTOR**; **DRUM**; **DRIVE**; **ASSEMBLE**; **MOUNT**; **MOVE**; **CART**; **DAVIT**; **ARM**; **PIVOT**; **MOUNT**; **ROPE**; **GRAB**; **CLAMP**; **TAKE-UP**; **DRUM**

Derwent Class: P35; Q46

International Patent Class (Main): A62B-001/10

International Patent Class (Additional): **E04G-003/10**

File Segment: EngPI

11/5/41 (Item 19 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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010548914 **Image available**

WPI Acc No: 1996-045867/199605

XRPX Acc No: N96-038361

Safety belt gripping machine - has ring which is welded on pinching body to hold rope of belt

Patent Assignee: HOSEN KIKI SEIBI KK (HOSE-N)

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 7310441	A	19951128	JP 94105678	A	19940519	199605 B

Priority Applications (No Type Date): JP 94105678 A 19940519

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 7310441	A		4	E04G-021/32	

Abstract (Basic): JP 7310441 A

The gripping machine is constructed on a rail (4) on which it rolls by means of a pair of rollers. The rollers are assembled on a pair of pinching bodies (2, 3) which are perpendicular to each other. A set of supporting rollers (13) are provided on either side of the rail.

A pair of supporting sides are provided on the pinching bodies. A rock pin (9) is provided across the pinching bodies to hold an assembly (1). A ring (15) is welded on the pinching body to hold a **rope** of the **safety** belt.

USE/ADVANTAGE - For supporting workers during bridge construction. **Secures safety** of worker. Provides light weight **device** which is portable and easy to handle.

Dwg.1/4

Title Terms: **SAFETY**; **BELT**; **GRIP**; **MACHINE**; **RING**; **WELD**; **PINCH**; **BODY**; **HOLD**; **ROPE**; **BELT**

Derwent Class: P35; Q46

International Patent Class (Main): **E04G-021/32**

International Patent Class (Additional): A62B-035/00

File Segment: EngPI

11/5/42 (Item 20 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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010246852 **Image available**
WPI Acc No: 1995-148107/199520
XRPX Acc No: N95-116322

Clamp for securing rope eyelet - has two part hinged plates with grip end to secure to support and with holes to locate eyelet bar

Patent Assignee: VEAG VER ENERGIEWERKE AG (VEAG-N)

Inventor: BERGHOF P

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 4334635	A1	19950413	DE 4334635	A	19931006	199520 B
DE 4334635	C2	19971002	DE 4334635	A	19931006	199743

Priority Applications (No Type Date): DE 4334635 A 19931006

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 4334635	A1	6		F16G-011/00	
DE 4334635	C2	6		F16G-011/00	

Abstract (Basic): DE 4334635 A

The clamp is made from two similar plates (1) which when placed together form a shaped grip (4) at the top to clamp around the mounting e.g. to the bototm edge of a girder. Holes in the plates line up and are fitted with a sleeve to locate a coupling bolt (6) over which the eyelet end of the **rope** is threaded. The **rope** end is clamped **securely** between the plates.

The plates are also provided with additional holes to locate a security lock to prevent inadvertent release of the **safety** clamp. No additional fasteners are required.

USE/ADVANTAGE - Support for **ropes** for working cradles. A safe clamp which can be fitted rapidly without special **tools**.

Dwg.2/3

Title Terms: CLAMP; **SECURE**; **ROPE**; EYELET; TWO; PART; HINGE; PLATE; GRIP
; END; **SECURE**; SUPPORT; HOLE; LOCATE; EYELET; BAR

Derwent Class: Q15; Q46; Q61; Q64

International Patent Class (Main): F16G-011/00

International Patent Class (Additional): B60P-007/08; B60P-007/13;

E04G-003/10; F16B-002/06; F16B-045/06; F16G-015/00

File Segment: EngPI

11/5/43 (Item 21 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.

010214702
WPI Acc No: 1995-115956/199516
XRPX Acc No: N95-091503

Platform support device for supporting planks from side of building - has elongate upright part with attachment portion at upper end with flat face with hole for elongate projection and for abutment against structure

Patent Assignee: COOK W R (COOK-I)

Inventor: COOK W R

Number of Countries: 002 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
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CA 2128180 A 19950116 CA 2128180 A 19940715 199516 B
US 5441125 A 19950815 US 9391292 A 19930715 199538

Priority Applications (No Type Date): US 9391292 A 19930715

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
CA 2128180	A		14	E04G-003/14	
US 5441125	A		7	E04G-003/08	

Abstract (Basic): CA 2128180 A

The **device** comprises an attachment portion at an upper end of an elongate upright member. The attachment portion is formed with a flat face for abutment against the structure and with nail holes interrupting the flat face for receiving the heads of a projection extending from the structure. The support can be suspended from the structure at a height determined by the location of the projection.

A pair of arms extending laterally outwardly from opposite sides of the upright member at a lower end of the upright member are for stabilizing abutment against the structure. A horizontal support projects forwardly from the lower end of the upright member. A reinforcement extends between and is fixed to the top of the support and the front of the upright member. A post upstands from an extremity of the support remote from the upright member and has a means for attaching a **safety rope** to the post.

USE/ADVANTAGE - For temporary attachment to a vertical side of a structure. The **device** can be **secured** at any desired height on the structure without access to the top of the structure, and it is compact.

Dwg.1/5

Title Terms: PLATFORM; SUPPORT; **DEVICE** ; SUPPORT; PLANK; SIDE; BUILD; ELONGATE; UPRIGHT; PART; ATTACH; PORTION; UPPER; END; FLAT; FACE; HOLE; ELONGATE; PROJECT; ABUT; STRUCTURE

Derwent Class: Q46

International Patent Class (Main): **E04G-003/08 ; E04G-003/14**

File Segment: EngPI

11/5/44 (Item 22 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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010074728 **Image available**

WPI Acc No: 1994-342441/199443

XRPX Acc No: N94-268661

System for attaching safety rope to electrical transmission tower elevated portion - uses catapult device to catapult projectile having lightweight elongated flexible filament attached to it, over elevated portion, so that rope can be secured to elevated portion

Patent Assignee: BELL M (BELL-I)

Inventor: BELL M

Number of Countries: 002 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
CA 2119054	A	19940917	CA 2119054	A	19940315	199443 B
US 5417303	A	19950523	US 9333670	A	19930316	199526
US 5595261	A	19970121	US 9333670	A	19930316	199710
			US 94364363	A	19941227	
CA 2119054	C	20000620	CA 2119054	A	19940315	200043

Priority Applications (No Type Date): US 9333670 A 19930316; US 94364363 A

19941227

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
CA 2119054	A		16	H02G-001/02	
US 5417303	A		7	E04G-005/00	
US 5595261	A		7	E04G-005/00	Div ex application US 9333670
					Div ex patent US 5417303
CA 2119054	C	E		H02G-001/02	

Abstract (Basic): CA 2119054 A

The attachment system extends the **rope** from the elevated portion to a lower portion of the tower so that a worker may be **secured** to the **rope** by a **safety device** to protect the worker from a falling from the tower. The tower comprises at least one leg extending from adjacent the elevated portion to adjacent the lower portion. The system comprises a catapulting **device**, a projectile having a light weight elongated flexible filament **secured** to it, a **safety rope**, and at least one gate **device**.

The catapulting **device** is arranged for catapulting the projectile over the elevated **structure** so that the projectile drops to a position adjacent the lower portion of the tower and the **safety rope** is coupled to the filament so that the **safety rope** is extended over the elevated portion and **secured** in place adjacent the tower leg between the elevated portion and the lower portion. The gate **device** is securable to the tower leg and includes an openable gate for releasable receipt of the **safety rope** in it to hold the **safety rope** in place adjacent the tower leg.

USE - For protecting workers on electric pylon from falling.

Dwg.1/5

Title Terms: SYSTEM; ATTACH; **SAFETY** ; **ROPE** ; ELECTRIC; TRANSMISSION; TOWER; ELEVATE; PORTION; CATAPULT; **DEVICE** ; CATAPULT; PROJECTILE; LIGHT; ELONGATE; FLEXIBLE; FILAMENT; ATTACH; ELEVATE; PORTION; SO; **ROPE** ; CAN; **SECURE** ; ELEVATE; PORTION

Derwent Class: P28; Q46; X12

International Patent Class (Main): **E04G-005/00** ; H02G-001/02

International Patent Class (Additional): A47L-003/00

File Segment: EPI; EngPI

11/5/45 (Item 23 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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009652476 **Image available**

WPI Acc No: 1993-346026/199344

XRPX Acc No: N93-267241

Movement device for scaffolding units - involves suspension borne by crane rope having at last two belts engaging with their free ends in suspension eyelets of scaffolding unit

Patent Assignee: NOE-SCHALTTECHNIK MEYER-KELLER GMBH (NOES-N)

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 4237155	C1	19931104	DE 4237155	A	19921104	199344 B

Priority Applications (No Type Date): DE 4237155 A 19921104

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 4237155	C1		5	B66C-001/22	

Abstract (Basic): DE 4237155 C

Between the suspension eyelets (10) of the scaffolding unit (1) and the two belts (5) of the crane suspension (6) a C or U-shaped stirrup (2) is provided, and in the upper cross area (3) of each stirrup (2) an eyelet (4) for the crane suspension (6) is provided. In the lower cross area (7) of each stirrup two spaced connecting components (8) are provided for releasable connection with the suspension eyelets (10) of the scaffolding unit.

At least one of the two connecting components (8) is flexibly formed as a **rope** or chain. At the free end of the connecting components (8) hooks (9) are provided and pref. with an easily releasable **securing device**.

USE/ADVANTAGE - For positioning scaffolding units on sloping **roof**, to prevent crane equipment fouling **roof** projections.

Dwg.2/2

Title Terms: MOVEMENT; **DEVICE** ; SCAFFOLDING; UNIT; SUSPENSION; BORNE; CRANE; **ROPE** ; LAST; TWO; BELT; **ENGAGE** ; FREE; END; SUSPENSION; EYELET; SCAFFOLDING; UNIT

Derwent Class: Q38; Q46

International Patent Class (Main): B66C-001/22

International Patent Class (Additional): **E04G-003/02**

File Segment: EngPI

11/5/46 (Item 24 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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009603397 **Image available**

WPI Acc No: 1993-296945/199338

XRPX Acc No: N93-228878

Safety **rope braking mechanism esp. for person working at height - has weight with pawl to interact with crown wheel and toothed cam to brake rope if safety speed is exceeded**

Patent Assignee: KOMET SA (KOME-N)

Inventor: PELOFI P

Number of Countries: 010 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 561682	A1	19930922	EP 93400650	A	19930315	199338 B
FR 2688815	A1	19930924	FR 923234	A	19920318	199347
CA 2091554	A	19930919	CA 2091554	A	19930311	199350
US 5323873	A	19940628	US 9328189	A	19930309	199425

Priority Applications (No Type Date): FR 923234 A 19920318

Cited Patents: FR 2617050; FR 2637505; WO 9100121

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 561682	A1	F	9	A62B-035/04	

Designated States (Regional): DE ES GB GR IE IT NL

CA 2091554	A	F	A62B-001/14
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US 5323873	A	9	A62B-035/04
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FR 2688815	A1	E04G-021/32
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Abstract (Basic): EP 561682 A

The mechanism comprises two hinged side plates which form a channel (5) for a **safety rope** to pass through, a ring which can be connected to a **safety belt or harness**, and a brake (26) to interact with the **rope**.

The two side plates are joined by a transverse pivot pin on which

the brake (26), in the form of a toothed wheel, is **mounted** . The pivot also carries a cam with toothed sections (42c), which is normally held away from the **rope** by a spring, and a weight (27). The weight interacts with a pawl (31) which is held away from a toothed crown wheel (55) by a spring.

USE/ADVANTAGE - **Safety rope** braking system for person working at height operates in both directions for greater **safety** .

Dwg.6/10

Title Terms: **SAFETY ; ROPE ; BRAKE; MECHANISM; PERSON; WORK; HEIGHT; WEIGHT; PAWL; INTERACT; CROWN; WHEEL; TOOTH; CAM; BRAKE; ROPE ; SAFETY ; SPEED**

Derwent Class: P35; Q46

International Patent Class (Main): A62B-001/14; A62B-035/04; **E04G-021/32**

File Segment: EngPI

11/5/47 (Item 25 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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009579397 **Image available**

WPI Acc No: 1993-272943/199334

XRPX Acc No: N93-209564

Safety harness for attachment to high structures during erection - has lanyard on safety belt fitted with lockable sliding anchor on wire rope tensioned between collars clamped to two structural members

Patent Assignee: BELL M (BELL-I)

Inventor: BELL M

Number of Countries: 003 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9316256	A1	19930819	WO 93US960	A	19930203	199334 B
AU 9336082	A	19930903	AU 9336082	A	19930203	199401
US 5316102	A	19940531	US 92834421	A	19920212	199421
CN 1079019	A	19931201	CN 93102932	A	19930212	199711

Priority Applications (No Type Date): US 92834421 A 19920212

Cited Patents: CH 271254; US 1350136; US 3444957; US 4116305; US 4674596;

US 4714134; US 5105907; US 578145

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 9316256	A1	E	25	E04G-021/32	
AU 9336082	A			E04G-021/32	Based on patent WO 9316256
US 5316102	A		9	A62B-035/00	
CN 1079019	A			E04G-021/32	

Abstract (Basic): WO 9316256 A

An adjustable **safety** belt (34) is shackled (76,80) to a lanyard (30) in which is incorporated a shock absorbing component. The free end of the lanyard is fitted with a sliding tubular **anchor** (26) provided with a **device** for locking the **anchor** to the cable (24).

The cable is fitted with a frictional **engagement** connector (60) and stretched between straps (42) on two of the fixed permanent **structural** members (32). The straps (42) are **securely** tightened around the beam or column members, and consists of nylon or polyester webbing with a ratchet tensioning connection **device** (40,46).

ADVANTAGE - A simple, **secure safety harness** , allowing considerable freedom of movement resulting in fewer moves of **safety** line position.

Dwg.1/2

Title Terms: **SAFETY ; HARNESS ; ATTACH; HIGH; STRUCTURE ; ERECT; LANYARD**
; **SAFETY ; BELT; FIT; LOCK; SLIDE; ANCHOR ; WIRE; ROPE ; TENSION;**
COLLAR; CLAMP; TWO; **STRUCTURE ; MEMBER**
Derwent Class: P35; Q46
International Patent Class (Main): A62B-035/00; **E04G-021/32**
File Segment: EngPI

11/5/48 (Item 26 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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008530474 **Image available**
WPI Acc No: 1991-034558/199105

Protection system for tile layers on roofs - NoAbstract
Patent Assignee: ZUST N (ZUST-I); ZUEST N (ZUES-I)
Inventor: ZUST N; ZUEST N
Number of Countries: 015 Number of Patents: 004
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
LU 87793	A	19901211				199105 B
EP 473535	A	19920304	EP 91630052	A	19910822	199210
CA 2050367	A	19920301	CA 2050367	A	19910830	199224
US 5221076	A	19930622	US 91750630	A	19910827	199326

Priority Applications (No Type Date): LU 87793 A 19900830
Cited Patents: BE 885504; DE 1534949; DE 2701138; NL 8800985
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes'
EP 473535	A				
Designated States (Regional): AT BE CH DE ES FR GB GR IT LI NL SE					
CA 2050367	A	F		E04B-007/00	
US 5221076	A		6	E04H-017/08	

Abstract (Basic): EP 473535 A

The **safety** equipment is preferably **mounted** at the base of a sloping **roof** . It comprises a set of posts, one or more at each end (20,30) having a foot (22) fitting in the gutter (70), and **secured** by a fixing **device** (25).

Top and bottom arms (45,46) are **secured** to the end posts by components (11-14) on the latter. Guy- **ropes** (26) coupled the posts to **anchoring** points on the **roof** , while a net (90) is **secured** to one arm at least, and to the end posts.

USE/ADVANTAGE - For personnel working on a sloping **roof** . Light weight and easy handling. (First major country equivalent to LU--87793) (9pp Dwg.No.2-4/4)

Title Terms: PROTECT; SYSTEM; TILE; LAYER; **ROOF ; NOABSTRACT**
Derwent Class: P35; Q43; Q46
International Patent Class (Main): **E04B-007/00 ; E04H-017/08**
International Patent Class (Additional): A62B-037/00; **E04G-021/32**
File Segment: EngPI

11/5/49 (Item 27 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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007286895
WPI Acc No: 1987-283902/198740

Portable elevating device - has harness secured to frame of winch

having cable with free end secured by anchor

Patent Assignee: ERICKSON C W (ERIC-I)

Inventor: ERICKSON C W

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 4694934	A	19870922				198740 B

Priority Applications (No Type Date): US 83563688 A 19831220

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 4694934	A	10		

Abstract (Basic): US 4694934 A

The **device** includes a winch frame for mounting a winch and a **harness** assembly **secured** to the winch frame for supporting an operator. The free end of the cable of the winch is releasably **secured** at a vertical position by a C-shaped **anchor**. The **anchor** may be positioned at the vertical position by a telescoping pole releasably **secured** to it.

After the free end of the cable is **secured** to the vertical position, the operator located in the **harness** assembly can elevate or lower himself by rolling or unrolling the cable on the winch. The winch frame includes a **rope** gripper for gripping a **rope** **secured** to a vertical position and moveable between a non-engaging position and an engaging position to thus operate as a **safety** line if the winch, cable or **anchor** should fail. (10pp Dwg.No.2/6)

Derwent Class: Q46

International Patent Class (Main): E04G-003/10

File Segment: EngPI

11/5/50 (Item 28 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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007259663

WPI Acc No: 1987-256670/198736

XRPX Acc No: N87-192029

Portable elevating device - has harness secured to winch frame and includes winch cable secured by anchor

Patent Assignee: ERICKSON L R (ERIC-I)

Inventor: ERICKSON L E

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 4688657	A	19870825	US 85783334	A	19851003	198736 B

Priority Applications (No Type Date): US 83563689 A 19831220; US 85783334 A 19851003

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 4688657	A	9		

Abstract (Basic): US 4688657 A

The **device** includes a winch frame for mounting a winch and a **harness** assembly **secured** to the winch frame for supporting an operator. The free end of the cable of the winch is releasably **secured** at a vertical position by a C-shaped **anchor**. The **anchor** may be positioned at the vertical position by a telescoping pole releasably

secured to it. After the free end of the cable is secured to the vertical position, the operator located in the harness assembly can elevate or lower himself by rolling or unrolling the cable on the winch.

The winch frame pref. includes a rope gripper for gripping a rope secured to a vertical position and moveable between a non-engaging position and an engaging position, to thus operate as a safety line if the winch, cable, or anchor should fall. The winch can include a member for stopping rotation of the winch if it reaches a rotational speed limit. The winch stopper may include pivotally mounted members which are rotatable with the winch and have an increasing radial extent with increasing rotational speed due to centrifugal force.

ADVANTAGE - The components of the elevating device can be collapsed and interconnected as a single unit into a transport mode for carrying on the back of the operator.

2/6

Title Terms: PORTABLE; ELEVATE; DEVICE ; HARNESS ; SECURE ; WINCH; FRAME ; WINCH; CABLE; SECURE ; ANCHOR

Derwent Class: Q46

International Patent Class (Additional): E04G-003/10

File Segment: EngPI

11/5/51 (Item 29 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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007226145

WPI Acc No: 1987-223153/198732

XRPX Acc No: N87-166853

Attachment of upper end of ladder to post - by device with jaws actuated by pulley and ropes accessible from ground

Patent Assignee: ANAPLASTIKI LTD (ANAP-N)

Inventor: MASTROGIAN S

Number of Countries: 012 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 232206	A	19870812	EP 87400264	A	19870205	198732 B
FR 2593852	A	19870807				198738

Priority Applications (No Type Date): FR 861562 A 19860205

Cited Patents: A3...8744; DE 193395; FR 1121612; FR 1257170; No-SR.Pub; US 1961289; US 3995714; US 4090587; US 4143743

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

EP 232206 A F 30

Designated States (Regional): AT BE CH DE ES GB IT LI LU NL SE

Abstract (Basic): EP 232206 A

The upper end of a ladder (420 is secured to a post (44) or to a scaffold by a device consisting of a base on which two hinged jaws (16,23) are mounted. This base is firmly attached to the top rung of the ladder and the jaws encircle the post to hold the ladder in place.

The jaws are actuated by a worm and wheel drive. The worm shaft carries a pulley which can be rotated by means of ropes (30,31) which are accessible from the ground level.

USE/ADVANTAGE - The device ensures the safety of the persons using the ladder.

Title Terms: ATTACH; UPPER; END; LADDER; POST; DEVICE ; JAW; ACTUATE; PULLEY; ROPE ; ACCESS; GROUND

Derwent Class: Q46; Q48
International Patent Class (Additional): E04G-005/04 ; E06C-007/48
File Segment: EngPI

11/5/52 (Item 30 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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007137288
WPI Acc No: 1987-137285/198720
XRPX Acc No: N87-102893

Mechanism forming steel wire rope end loops - has frame with two spaced side jaws with end clamps, with slide carriage at opposite end operated by RAM

Patent Assignee: DYCKERHOFF & WIDMANN KG (DYCK)
Number of Countries: 015 Number of Patents: 010

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 222141	A	19870520	EP 86113719	A	19861003	198720 B
DE 3538919	A	19870521	DE 3538919	A	19851102	198721
JP 62107835	A	19870519	JP 86258727	A	19861031	198725
NO 8604012	A	19870525				198726
DE 3538919	C	19871223				198751
US 4773247	A	19880927	US 86923314	A	19861027	198841
EP 222141	B	19890607				198923
DE 3663830	G	19890713				198929
CA 1255999	A	19890620				198931
ES 2009753	B	19891016				199003

Priority Applications (No Type Date): DE 3538919 A 19851102
Cited Patents: A3...8747; DE 3207957; FR 1084657; FR 1548330; FR 2411934;
No-SR.Pub; US 3824653; US 4237942

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 222141	A	G	10		
Designated States (Regional): AT BE CH DE ES FR GR IT LI NL					
DE 3538919	A		7		
US 4773247	A		8		
EP 222141	B	G			
Designated States (Regional): AT BE CH DE ES FR GB IT LI NL					

Abstract (Basic): EP 222141 A

The mechanism has a frame (10) with spaced side jaws (11). At one jaw end are clamps (20) for the wire **rope**, consisting of two moving jaws (22) pushed against each other by sets of toggle arms, with their other ends connected to a compression member and an upsetting tube.

The mobile jaws are moved by a two-arm lever (42) operated by ram (40). When the piston of the ram is withdrawn, the upper end (44) of the lever rests against the two mobile jaws, which are moved by toggle arms together and clamp the wire **rope**. A further withdrawal of the piston results in backward movement of the entire clamp against a stop (31) with a blind hole (34). The strands pass through a tube (50) with rotating inner lining which shapes the end loop.

USE/ADVANTAGE - For concrete component **anchoring**, without wire **rope** damaging, but with adjustable clamping force.

1/4

Title Terms: MECHANISM; FORMING; STEEL; WIRE; **ROPE**; END; LOOP; FRAME; TWO
; SPACE; SIDE; JAW; END; CLAMP; SLIDE; CARRIAGE; OPPOSED; END; OPERATE;
RAM

Derwent Class: P52; Q44

International Patent Class (Additional): B21D-007/00; B21F-001/04;
B21F-007/00; B21F-021/00; **E04C-005/12**
File Segment: EngPI

11/5/53 (Item 31 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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007110210
WPI Acc No: 1987-110207/198716
XRPX Acc No: N87-082935

**Suspension cradle transporter - moves cradle along upper region of
edifice without drilled anchorages**

Patent Assignee: COLEBRAND LTD (COLE-N)
Inventor: DALEY E
Number of Countries: 014 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 219277	A	19870422	EP 86307603	A	19861002	198716 B
US 4765424	A	19880823	US 86914880	A	19861003	198836

Priority Applications (No Type Date): GB 8524450 A 19851003
Cited Patents: A3...8804; DE 2921636; FR 1387059; GB 574520; No-SR.Pub; US
3991842

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
EP 219277	A	E	7	

Designated States (Regional): AT BE CH DE ES FR GB GR IT LI LU NL SE
US 4765424 A 7

Abstract (Basic): EP 219277 A

The suspension cradle (1) is transported along a flat surface (3) at the top of an edifice. Extensible beams (8,9,10,11) are extended in pairs through hydraulic jacks and pads (12) and alternately **engage** the surface. One pair of beams (8,9) is carried by one frame (6) and the second pair (10,11) by another frame (7). The two frames (6,7) are connected by a roller guide arrangement (14,15) for relative sliding movement.

ADVANTAGE/USE - Enables a suspension cradle to be moved along the upper region of an upright edifice without drilled **anchorages** or wire **ropes**.

Title Terms: SUSPENSION; CRADLE; TRANSPORT; MOVE; CRADLE; UPPER; REGION;
DRILL; **ANCHOR**

Derwent Class: Q22; Q46

International Patent Class (Additional): B62D-011/06; **E04G-001/20 ;
E04G-003/16**

File Segment: EngPI

11/5/54 (Item 32 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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007014316
WPI Acc No: 1987-014313/198702
XRPX Acc No: N87-010502

**Semi-adjustable service platform for gantry crane - includes paired
horizontal sliding beams, laterally extendible oppositely from base frame**
Patent Assignee: PACECO CORP (PACE-N); THOMPSON G J (THOM-I)

Inventor: THOMPSON G J

Number of Countries: 008 Number of Patents: 009

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 4630708	A	19861223	US 86823565	A	19860129	198702 B
GB 2185728	A	19870729	GB 87147	A	19870106	198730
AU 8767906	A	19870730				198737
FR 2593486	A	19870731				198737
GB 2185728	B	19880928				198839
ES 2004201	A	19881216	ES 87207	A	19870128	198934
CA 1266452	A	19900306				199014
KR 9001039	B	19900226				199102
IT 1205856	B	19890331				199129

Priority Applications (No Type Date): US 86823565 A 19860129

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 4630708	A		7		

Abstract (Basic): US 4630708 A

The adjustable service platform for a gantry crane has an elongated base frame which includes a pair of horizontally sliding beams which are laterally extendible outboard in opposite directions from the base frame. Detachable towers with work platforms at the tops are **secured** to the ends of the sliding beams.

The platforms can be raised and lowered and moved inboard and outboard along the crane by the hoist and trolley motions of the crane and can be laterally extended and retracted independently from the hoist and trolley motions of the crane. Operators standing on the work platforms can readily move them to provide access to an permit inspection of the **structural** elements of the cranes supporting **structure** from the top of the boom to part way down the base **structure** of the crane by means of work platform controls.

USE - Platform raisable by crane lift head to provide access e.g. by inspectors

Title Terms: SEMI; ADJUST; SERVICE; PLATFORM; GANTRY; CRANE; PAIR; HORIZONTAL; SLIDE; BEAM; LATERAL; EXTEND; OPPOSED; BASE; FRAME

Derwent Class: Q38; Q46

International Patent Class (Additional): B66C-001/16; B66C-011/12; B66C-017/04; B66C-019/00; B66F-007/02; B66F-011/04; **E04G-003/10**

File Segment: EngPI

11/5/55 (Item 33 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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004648605

WPI Acc No: 1986-151948/198624

XRPX Acc No: N86-112793

Inertia rope grab brake - has pivot arm to engage rope held in channel in housing

Patent Assignee: DB INDS INC (DBIN-N)

Inventor: WOLNER J T

Number of Countries: 005 Number of Patents: 007

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
GB 2168102	A	19860611	GB 8511228	A	19850502	198624 B
DE 3543464	A	19860612	DE 3543464	A	19851209	198625
FR 2574511	A	19860613				198630
US 4657110	A	19870414	US 84679624	A	19841210	198717

GB 2168102	B	19870923	198738
CA 1241937	A	19880913	198841
DE 3543464	C	19900201	199005

Priority Applications (No Type Date): US 84679624 A 19841210

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
GB 2168102	A		5		

Abstract (Basic): GB 2168102 B

The **rope** -grab **safety** brake (10) for engaging a vertically extending **safety** line, comprises a mounting bracket having spaced apart walls extending vertically defining a channel through which a **safety** line (12) extends when the bracket is in use. A pair of guide tracks (66) are formed in the wall segments parallel to each other in opposed, spaced apart relation. The guide tracks extend upwardly and toward the channels. Each guide track has an upper end and a lower end, with respect to the orientation.

A **safety** line retainer (84) extends across the channel between the wall segments to contain a **safety** line within the channel. A stop roller extends between the wall segments and has end portions positioned in the guide tracks.

ADVANTAGE - Ease of fitting and security. (5pp Dwg.No.2/3

Title Terms: INERTIA; **ROPE** ; GRAB; BRAKE; PIVOT; ARM; ENGAGE; **ROPE** ; HELD ; CHANNEL; HOUSING

Derwent Class: P35; Q46; Q64

International Patent Class (Additional): A62B-001/14; A62B-035/00;

A62B-037/00; **E04G-021/82** ; F16G-011/04

File Segment: EngPI

11/5/56 (Item 34 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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004498353

WPI Acc No: 1986-001697/198601

XRFX Acc No: N86-001289

Safety device for person on ledge - comprises body harness
connected by linkage to roller carriage travelling along adjacent wall

Patent Assignee: NORTH WEST WATER AU (NWWA-N)

Inventor: CLARK I

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
GB 2160571	A	19851224	GB 8415592	A	19840619	198601 B
GB 2160571	B	19870819				198733

Priority Applications (No Type Date): GB 8415592 A 19840619

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
GB 2160571	A		3		

Abstract (Basic): GB 2160571 A

A carriage (7) is **secured** to the top of a wall (1) and a linkage (6) extends between the carriage and a **harness** (4) worn by a person. The carriage is adapted to travel along the wall in response to tension in the linkage. The carriage may comprise a chassis carrying rollers or wheels which engage one or more of the sides of the wall.

Pref. the rollers or wheels engage the top and both sides of the

wall. Alternatively, the rollers or wheels may engage the top and outer side of the wall. The carriage is pref. arranged to run freely along the top of a wall so that it does not impede a user's movements. The separation of the rollers or wheels of the carriage is pref. adjustable so that the **safety device** may be used with walls of different dimensions. The linkage may comprise a cord, chain, **rope**, line.

USE - To prevent a user falling into a sedimentation tank in a sewage treatment works.

1/1

Title Terms: **SAFETY ; DEVICE ; PERSON; LEDGE; COMPRISE; BODY; HARNESS ;**
CONNECT; LINK; ROLL; CARRIAGE; TRAVEL; ADJACENT; WALL
Derwent Class: Q46
International Patent Class (Additional): **E04G-021/32**
File Segment: EngPI

11/5/57 (Item 35 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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004307410

WPI Acc No: 1985-134288/198522

XRPX Acc No: N85-100921

Safety device for scaffold - comprises adjustable lanyard, placed around rope supporting scaffold and is secured to stud on building

Patent Assignee: STAFFORD L R (STAF-I)

Inventor: STAFFORD L R

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 4516661	A	19850514	US 83529010	A	19830902	198522 B

Priority Applications (No Type Date): US 83529010 A 19830902; US 82415756 A 19820907

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 4516661	A	9		

Abstract (Basic): US 4516661 A

The **safety device** is for **securing** a scaffold to the side of a building in order to prevent movement. The **securing** of the scaffold is achieved by placing a lanyard, pref. an adjustable lanyard, around the **rope** supporting the scaffold and **securing** the lanyard to a stud on the side of a building by a yoke.

There are several **anchors** with support posts and heads **secured** to and disposed vertically at spaced intervals along the outside surface of the building. The U-shaped yoke fits on and is **secured** around one of the **anchors**.

USE - The scaffold is for use by workmen for many external tasks e.g. repairs, modifications, window washing, painting, etc.

9/13

Title Terms: **SAFETY ; DEVICE ; SCAFFOLDING; COMPRISE; ADJUST; LANYARD;**
PLACE; **ROPE ; SUPPORT; SCAFFOLDING; SECURE ; STUD; BUILD**
Derwent Class: Q46
International Patent Class (Additional): **E04G-005/04**
File Segment: EngPI

11/5/58 (Item 36 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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003989421

WPI Acc No: 1984-134965/198422

XRPX Acc No: N84-099991

Tall chimney oscillation cancelling suspended weight - has retaining cables restricting swing, fastened at interval from hangers anchor point

Patent Assignee: FETTE D (FETT-I)

Inventor: FETTE D

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 3243168	A	19840524	DE 3243168	A	19821123	198422 B
DE 3243168	C	19890831				198935

Priority Applications (No Type Date): DE 3243168 A 19821123

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
DE 3243168	A	10		

Abstract (Basic): DE 3243168 A

The **device** for eliminating oscillations on slender **structures**, esp. chimneys, has a pendulum-hung wt, pref. concentric with the **structure**. This may be made up from separate elements. The system is highly resistant to wear.

The wt. (4) is **mounted** so as to swing virtually freely. Its movements are limited by one or more control-type retainers (5). The attachment points (6) of these, on the **structure**, are at an interval from the **anchoring** point (2) where the hanging agents (3) for the wt. are connected. The retainers may be steel or similar cables, pref. at less than 20 deg. from the vertical. They and the hanging agents can be in pairs.

1/2

Title Terms: TALL; CHIMNEY; OSCILLATING; CANCEL; SUSPENSION; WEIGHT; RETAIN ; CABLE; RESTRICT; SWING; FASTEN; INTERVAL; HANGER; **ANCHOR** ; POINT

Derwent Class: Q43

International Patent Class (Additional): **E04B-001/98**

File Segment: EngPI

11/5/59 (Item 37 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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003241387

WPI Acc No: 1982-A2503E/198202

Safety device for persons working e.g. on roof - has bracing wire attachment for person, with end connected to brake mechanism

Patent Assignee: MITTELMANN & CO ARM (MITT-N)

Inventor: KUTSCHERA W

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 3023489	A	19820107				198202 B
DE 3023489	C	19831110				198346

Priority Applications (No Type Date): DE 3023489 A 19800624

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
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Abstract (Basic): DE 3023489 A

The **safety device** protecting persons working at heights from fall is fitted on a roof beam (10) resting on roof supports (11). The **safety** equipment consists of a bracing wire (13) stretched between two opposite double supports (14) fixed on the roof beam. The person is provided with catch **harness** (15), with a **safety rope** (17) connected to a dive brake (16). The **safety rope** is attached to the bracing wire (13) with an eyelet enabling the **rope** to slide along the bracing wire as the person walks along the beam.

In case of an accidental fall at any point of the beam, the **safety rope** tightens and the weight of the person is transferred onto the bracing wire. The brake (26) to which one end of the bracing wire is connected comes into operation and slows down the fall of the person with a subsequent stop of the fall.

1

Title Terms: **SAFETY ; DEVICE ; PERSON; WORK; ROOF; BRACE; WIRE; ATTACH;**

PERSON; END; CONNECT; BRAKE; MECHANISM

Derwent Class: P35; Q46

International Patent Class (Additional): A62B-037/00; **E04G-021/32**

File Segment: EngPI

11/5/60 (Item 38 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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002391214

WPI Acc No: 1980-K7684C/198045

Rock climbing safety device - has pulley mounted on spring loaded arm which brakes against rope in event of fall

Patent Assignee: BERIEL P (BERI-I)

Inventor: BERIEL P

Number of Countries: 007 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 18302	A	19801029				198045	B
FR 2454313	A	19801218				198107	
EP 18302	B	19830323				198313	
DE 3062407	G	19830428				198318	

Priority Applications (No Type Date): FR 799581 A 19790417

Cited Patents: FR 2304564; FR 2318561; FR 2339566

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

EP 18302 A F

Designated States (Regional): AT CH DE GB IT LI

EP 18302 B F

Designated States (Regional): AT CH DE GB IT LI

Abstract (Basic): EP 18302 A

The **safety device** for solo rock climbers is fixed by a karrabiner to the climbing **harness**. The **device** consists of a flat housing with parallel sides enclosing a pulley mounted on a lever attached to a second spring loaded lever.

A **rope** passes through slots in the housing and around the pulley.

In the event of a fall the tension on the **rope** presses the pulley against an internal rib which acts as a brake and checks the descent.

Title Terms: ROCK; CLIMB; **SAFETY ; DEVICE ; PULLEY; MOUNT; SPRING; LOAD;**

ARM; BRAKE; ROPE ; EVENT; FALL
Derwent Class: P36; Q46
International Patent Class (Additional): A63B-027/00; A63B-029/02;
E04G-021/32
File Segment: EngPI

11/5/61 (Item 39 from file: 350)
DIALOG(R) File 350: Derwent WPIX
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001902509

WPI Acc No: 1978-D1751A/197816

**Automatic fall prevention device for hoist - has rotary device
triggering safety rope self-locking grip on detection of excessive
rope speed**

Patent Assignee: TRACTEL SA (TRAC-N)

Inventor: CAVALIERI M

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
FR 2359064	A	19780324				197816 B

Priority Applications (No Type Date): FR 7622635 A 19760723; FR 7523722 A
19750730

Abstract (Basic): FR 2359064 A

The automatic fall-prevention **device** is for a motor-driven hoist,
having a self-tightening jaw block sustaining the load on a **safety
rope** .

A movable frame is accommodated in a housing, and a rotary **device**
detects the unwinding speed of the **safety rope** in a given
direction. This is coupled to the **safety rope** grip mechanism by a
cocked mechanism which it triggers when the **rope** speed exceeds a
pre-set value. The cocked mechanism can also be triggered by the
anchoring link, where the load applied to the latter is less than a
given minimum value.

Title Terms: AUTOMATIC; FALL; PREVENT; **DEVICE** ; HOIST; ROTATING; **DEVICE** ;
TRIGGER; **SAFETY** ; **ROPE** ; SELF; LOCK; GRIP; DETECT; EXCESS; **ROPE** ;
SPEED

Derwent Class: Q38; Q46

International Patent Class (Additional): B66D-001/54; **E04G-003/10**

File Segment: EngPI

Set	Items	Description
S1	10389	ROPE OR ROPES
S2	308123	ANCHOR? OR SECURE? OR SECURING OR HARNESS?
S3	857317	BUILD? OR STRUCTUR? OR ROOF? OR CONSTRUCTION?
S4	540898	MOUNT? OR ENGAG?
S5	1081905	DEVICE? OR APPARATUS? OR TOOL?
S6	716	S1(25N)S2(25N)S5
S7	73	S6(30N)SAFETY
S8	364	S6(S) (S3 OR S4)
S9	390	S8 OR S7
S10	21	S9 AND IC=(E04B? OR E04G? OR E04C?) .

? show files

File 349:PCT FULLTEXT 1979-2002/UB=20030403,UT=20030327

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File 348:EUROPEAN PATENTS 1978-2003/Mar W05

(c) 2003 European Patent Office

10/3,K/1 (Item 1 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00965183 **Image available**

SAFETY DEVICE FOR OPERATIONS ON HORIZONTAL SURFACES IN CONSTRUCTION WORKS
DISPOSITIF DE SECURITE POUR TRAVAUX SUR SURFACES HORIZONTALES DANS DES
CHANTIERS DE CONSTRUCTION
DISPOSITIVO DE SEGURIDAD PARA TRABAJOS SOBRE SUPERFICIES HORIZONTALES EN
OBRAS DE CONSTRUCCION

Patent Applicant/Assignee:

ENCOFRADOS J ALSINA S A, Poligon Industrial Pla d'en Coll, Cami de la
Font Freda, E-08110 Montcada I Reixach, ES, ES (Residence), ES
(Nationality), (For all designated states except: US)

Patent Applicant/Inventor:

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200299226 A1 20021212 (WO 0299226)

Application: WO 2002ES233 20020517 (PCT/WO ES0200233)

Priority Application: ES 20011283 20010604

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CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP
KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO
RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW
(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: Spanish

Filing Language: Spanish

Fulltext Word Count: 3293

Main International Patent Class: E04G-021/32

English Abstract

The **device** comprises means for attaching an operator to a fixed element of the **construction** work, said means including a harness or **safety** belt and a snap ring; an **anchoring** element (2) suitable for insertion into a concrete mass (3) and becoming integral with said mass after setting, which connects the **device** to said fixed element of the **construction** work, and a mast (4) releasably connected by its lower end to said **anchoring** element and attached to a **rope** (5) by its upper end, said **rope** being connected to the above-mentioned attaching means by its lower end (7) and rotatable...

10/3,K/2 (Item 2 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00914411 **Image available**

ANCHOR FOR SECURING SAFETY DEVICE

ANCRAJE UTILE POUR FIXER UN DISPOSITIF DE SECURITE

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AU (Nationality)
Legal Representative:
DREW David (et al) (agent), CMC Centre, 143 Sydney Road, Fairlight, NSW
2094, AU,
Patent and Priority Information (Country, Number, Date):
Patent: WO 200248481 A1 20020620 (WO 0248481)
Application: WO 2001AU1597 20011210 (PCT/WO AU0101597)
Priority Application: AU 20001984 20001211
Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU
CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP
KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO
RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW
(EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 5510

Main International Patent Class: E04G-021/32
Fulltext Availability:
Detailed Description

Detailed Description

... axial extension of the shaft up to the extent determined by the stop means.

The **structure** may include a **building structure**. The **building structure** may be in the process of being built, or may be the subject of maintenance or renovation activities. The **building** may be a commercial or domestic **structure** and the invention is applicable to any type of **building structure**, requiring only that the **structure** be capable of supporting the load constraints involved. **Safety** devices should be installed in compliance with the current safety codes of practice for WO 02/48481 PCT/AUOI/01597

3

The safety device may include a range of **devices** adapted to **secure** a worker or an object. The safety **device** may include a railing. The safety **device** may include a railing to which a safety **harness** or a runner may be **secured**. The safety **device** may include a safety **harness** affixed to the **anchor**, such as by a **rope** or cable. In particular, the safety **device** includes safety **harnesses**, full arrestors, work positioning belts and the like. Preferably, where the safety **device** is a **harness**, crotch and sternum support should be provided.

In a preferred application of the invention, the **anchor** is adapted to be located on an internal wall adjacent a wall opening, such as a window. The operator may be able to secure his safety **device** to the anchor on the internal wall of the **building** and to gain access to the outside of the **building**, secured by one or more anchors, via the wall opening.

The anchor may also be...practice for working at heights. These include being attached to an anchor point, using approved **safety** equipment, a scaffold or a secured loader. Care should be taken in determining the number of **anchor** points. In considering the number of **anchor** points to be installed for a particular **safety device** or **safety devices**, the person skilled in the art will appreciate that the pendulum effect applies and care should be taken to arrange the **anchor** points and the

ropes , cables and/or lanyards attaching the **safety** device or 2o devices to the **anchor** points to minimise any such uncontrolled swinging action which might otherwise be experienced by a fallen worker. It should also be noted that the first **anchor** point must be in a position easily reached by a **secured** ladder or a man hole access point. The reinforcing steel (96) in the concrete (97...

...bore hole for receiving the sleeve (24). If there is any doubt as to the **structural** adequacy of the anchorage, an engineer should be employed to make the assessment.

As an...

10/3,K/3 (Item 3 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00884315 **Image available**

INFLATABLE TENSIONING DEVICE

DISPOSITIF DE TENSIONNEMENT GONFLABLE

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Legal Representative:

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200218103 A1 20020307 (WO 0218103)

Application: WO 2001ZA124 20010827 (PCT/WO ZA0100124)

Priority Application: ZA 2000959 20000828; ZA 20012618 20010330

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU

CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP

KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PH PL PT RO RU

SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 2656

International Patent Class: E04C-005/12 ...

... E04G-021/12

Fulltext Availability:

Detailed Description

Claims

Detailed Description

INFLATABLE TENSIONING DEVICE

FIELD OF THE INVENTION

This invention relates to a **device** for tensioning elongated elements such as wire **ropes** , chains, bolts, rods or the like. In particular it is intended for use in the **construction** or mining industry for tensioning mechanical **anchors** , reinforcing rods and so on which are used to stabilize and support the walls of rock or g round excavations,

BACKGROUND TO THE INVENTION

Mechanical rock **anchors** , concrete reinforcing cables and the like are typically tensioned, once anchored, by means of a...

...end of the wall of the vessel is substantially rounded.

In certain applications the tensioning **device** may include a pressure indicating **device** which is open to the cavity of the pressure vessel.

A method of tensioning an elongated member such as a metal rod, **rope** or the like by means of the above tensioning **device** characterised in that according to the invention the method includes the steps of **anchoring** the elongated member in a body, passing one end of the member through the aperture of the tensioning **device** on the outside of the body of material, bringing a first major wall component of...

...component of the tensioning device, locking the pressure plate against the tensioning device by means **engaged** with the elongated member and inflating the tensioning device pressure vessel by means of liquid...

Claim

... end [50] of the wall [48] of the vessel is substantially rounded.

9 A tensioning **device** [10,42,45,47] as claimed in any one of the above claims including a pressure indicating **device** [62] which is open to the cavity of the pressure vessel.

10 A method of tensioning an elongated member such as a metal rod [52], **rope** [59] or the like by means of the tensioning **device** [10,42,45,47] of any one of the above claims characterised in that the method includes the steps of **anchoring** the elongated [52,59] member in a body [58], passing one end of the member...

...plate [38,54] against the tensioning device [10,42,45,47] by means [40,56,60] **engaged** with the elongated member [52,59] and inflating the tensioning device (10,42,45,47...

10/3,K/4 (Item 4 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00880605 **Image available**

ROOF ANCHOR METHOD AND APPARATUS

APPAREIL ET PROCEDE POUR PIECE D'ANCRAGE POUR TOIT

Patent Applicant/Inventor:

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Legal Representative:

DREW David (et al) (agent), CMC Centre, 143 Sydney Road, Fairlight, NSW
2094, AU,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200214625 A1 20020221 (WO 0214625)

Application: WO 2001AU1013 20010815 (PCT/WO AU0101013)

Priority Application: AU 20009422 20000815

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CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP

KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD

SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW
(EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 3232

Main International Patent Class: **E04G-021/32**
Fulltext Availability:
Detailed Description

Detailed Description

ROOF ANCHOR METHOD AND APPARATUS

TECHNICAL FIELD

The present invention relates to roof anchors for attaching **devices**, **apparatus** or equipment to a roof support structure and, more particularly, to a method or **apparatus** for installing a roof **anchor** to the structure. The **devices**, **apparatus** or equipment to be attached may include roof mounted fittings such as water heaters or solar panels, safety equipment such as a **safety harnesses**, **ropes** or other **safety devices** adapted to **secure** a roof worker, such as a **safety** barrier or fence.

BACKGROUND ART

lo Conventional roof **anchoring devices** require access to a roof support structure such as a purlin or rafter. Direct access to the support structure is generally required and involves mounting the roof **anchor** prior to the application of the external covering of the **roof** such as tiles, sarking or sheeting so that, on application of the external covering to the support **structure**, the **roof** anchor extends proud of the external covering.

If the external covering has already been applied...

10/3,K/5 (Item 5 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00811058 **Image available**

SCAFFOLDING SAFETY DEVICE

DISPOSITIF DE SECURITE D'ECHAFAUDAGE

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Legal Representative:

NEILL Alastair William (et al) (agent), Appleyard Lees, 15 Clare Road,
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Patent and Priority Information (Country, Number, Date):

Patent: WO 200144599 A1 20010621 (WO 0144599)

Application: WO 2000GB4563 20001129 (PCT/WO GB0004563)

Priority Application: GB 9929814 19991217; GB 200023405 20000925

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ
DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ
LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG
SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
((OAPI utility model)) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW
(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English
Filing Language: English
Fulltext Word Count: 2210

Main International Patent Class: **E04G-001/26**
Fulltext Availability:
Detailed Description

Detailed Description
... approximately circular, cross-section.

The tether may be a lanyard, preferably a tape or **rope** lanyard, attachable to a worker's **harness**. The lanyard may be captive on the attachment portion. The lanyard may be a part of the scaffolding **safety device**. The tether may have a closed loop, for attachment to the attachment portion by means of the hinged opening therein.

The **safety device** may be made of steel. The **safety device** may be drop-forged.

The **safety device** may be operable to be secured to a generally vertically orientated scaffolding pole. The **safety device** may be operable to be secured to a scaffolding pole orientated at an angle...

10/3,K/6 (Item 6 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00799486 **Image available**

SUPPORT APPARATUS
DISPOSITIF SUPPORT

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200133014 A1 20010510 (WO 0133014)

Application: WO 2000AU1321 20001027 (PCT/WO AU0001321)

Priority Application: AU 9957113 19991029

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DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ

LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG

SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

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Fulltext Word Count: 3154

Main International Patent Class: **E04G-023/03**
International Patent Class: **E04G-021/32**
Fulltext Availability:
Detailed Description

Detailed Description

... safe working environment for
workers involved in the roofing trade is a difficult task.

Sloping **roofs** during wet weather are particularly hazardous workplaces and workers can frequently slip off the **roof** to their death if unrestrained. The use of **ropes** or retractable fall arresters is known in the art, where a worker wears a body **harness** connected via the cord of the fall arrester to a **mounting device**, which **secures** the arrester at one end. The arresters or **ropes** normally lie on the surface of the **roof** during use. There are of ten only limited places to screw or hammer a **mounting device** into position. Usually large areas of the **roof** tiles, shingles or sheets need to be removed to create a **mounting** position for the known **mounting** devices. The use of alternative devices such as a temporary fence constructed about the circumference of the **roof** also involves removing large areas of the **roofing** materials in order to fit the fence into position. This is a time consuming task...

...unlawfully avoided in the interest of expedience and can also lead to damage of the **roof structure**.

Summary of the Invention

The present invention provides a support apparatus adapted to mount to...

10/3,K/7 (Item 7 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00793974 **Image available**

ADJUSTABLE SAFETY CABLE

CABLE DE SECURITE REGLABLE

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Legal Representative:

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200127411 A1 20010419 (WO 0127411)

Application: WO 2000GB3820 20001006 (PCT/WO GB0003820)

Priority Application: GB 9923976 19991012; GB 2000507 20000112; GB
20003970 20000222; GB 200013595 20000606

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ

DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ

LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG

SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 6443

Main International Patent Class: E04G-001/26

Fulltext Availability:

Detailed Description

Detailed Description

... a scaffold erected;

Figure 2 is an isometric view of a scaffold erected, with the **safety apparatus** in place;

Figure 3 is a side view of the first and second substantially vertical supports and of the supporting cable of said **safety apparatus**, which embodies the present invention;

Figure 4 is a side view of a detail of the first substantially vertical support of said **safety apparatus**, illustrating the **anchoring** of the supporting

cable and the external strengthener component at the base of an upper tube of said first substantially vertical support;

Figure 5 is a perspective view of the **device** which embodies first and second fixing means;

Figure 6 is a side view of a system of pulleys and **rope** combination, used to adjust the height of both an upper and lower tube of a...and said adjustment has been carried out by way of a system of pulleys and **rope** combination 601, 602, 603. Additionally, further

integrity has been provided to the **safety apparatus** by releasing second

fixing means 215 and 219 from their **anchoring** to transversal poles 704 and

706 respectively, and re- **anchoring** to new, higher transversal poles 903 and 904.

Scaffolder 707 has been able to carry out all the aforementioned adjustments in total **safety**. Moreover, scaffolder 708 is still able to anchor

his harness 710 to safety cable 203...the length of upper tube 207.

Second fixing means 218 and 219 are

then respectively **secured** to transversal poles 1005 and 1009.

Subsequently, first fixing means 217 is released from transversal pole 1004 and the length of the **safety apparatus** is adjusted by way of the system of pulleys and **rope** 601, 602 and 603. Similarly, first fixing means

221 is released from transversal pole 1006...

10/3,K/8 (Item 8 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00495861 **Image available**

ANCHOR FOR SAFETY ROPE

ANCRAGE POUR CORDE DE SECURITE

Patent Applicant/Assignee:

POLDMAA Arvo,

Inventor(s):

POLDMAA Arvo,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9927213 A1 19990603

Application: WO 98AU968 19981120 (PCT/WO AU9800968)

Priority Application: AU 97437 19971120; AU 985682 19980903

Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV

MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG
US UZ VN YU ZW GH GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT
BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA
GN GW ML MR NE SN TD TG

Publication Language: English
Fulltext Word Count: 3124

Main International Patent Class: E04G-021/32

Fulltext Availability:

Detailed Description
Claims

English Abstract

The invention provides an **anchor device** (10) for a **safety rope** (8). **Anchor device** (10) includes receiving means (12) for receiving the **rope** (8) and **securing** means (14, 16) for **securing** the receiving means (12) to a building's structure (39). The invention also provides a building element which includes at least one mounting location for receiving the **anchor device** of the invention.

Detailed Description

ANCHOR FOR SAFETY ROPE

TECHNICAL FIELD

This invention relates to safety **harness** systems and more particularly to **devices** for **securing** a **safety rope** to a building.

BACKGROUND ART

At present there are available safety **harnesses** and **ropes** which are intended to be **secured** to a structure so that if the wearer of the safety **harness** falls, their fall will be halted by the safety **rope**. However the integrity of the entire system relies on the **rope** being **secured** to an **anchor** point which can take the loading applied to by a falling person. Such a load...

...about 2.2 tonnes).

Most buildings or buildings under construction do not have any suitable **anchor** points, which may lead to a false sense of security if a **safety** harness is worn and attached to an inappropriate anchor point, or workers not wearing **safety** harnesses.

A further problem is that the building structure and in particular the roof structure...

...of the disadvantages of the prior art, the invention in one broad form provides an **anchor device** for a **safety rope**, the **anchor device** including.

receiving means for receiving a **safety rope**; and
securing means for **securing** the receiving means to a building's structure.

25 The receiving means may be a...

...or a ring with a movable section or an incomplete ring or similar.

Preferably the **anchor device** includes a deformable portion which deforms under a load.

Preferably the receiving means is spaced...roof truss made according to the beams of figures 12 or 14 5 with the **anchor devices** of figures 1

1 and 12 and/or figures 13 and 14 attached.

The operation of the **anchor devices** of all the embodiments is basically the same and will be described with reference to the figures 1 to 5 **device** .

When a **safety rope** 8 is attached to both the ring 12 and a user, it is normally untensioned and the length of **rope** is greater than the distance between the ring 12 and the user. If the user loses their grip and falls, initially they are unrestrained until the **rope** 8 is pulled tight. At this point the person may have a considerable velocity which must be stopped by applying a force to that body via the **rope** 8 and the **anchor device** . The **rope** 8 may stretch a little or have sewn sections which unravel to reduce the impact, but despite this the acceleration and hence forces created in the **rope** and on the **anchoring device** 10 are high.

The forces tend to be applied perpendicular to the axis of...

Claim

1 - An **anchor device** for a **safety rope** , the **anchor device** including receiving means for receiving an end of a **safety rope** ; and **securing** means for **securing** the **device** directly or indirectly to a building element.

2 The **device** of claim 1 further including mounting means to which the **securing** means is **secured** .

3 The **device** of claim 2 wherein the mounting means includes two or more locations to receive the **securing** means. 4. The **device** of any one of claims 1 to 3 including a rod or tube and said receiving means is **mounted** on or integral with a first end portion of the rod or tube and the...

10/3,K/9 (Item 9 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00274978 . **Image available**

FIXING DEVICE

DISPOSITIF DE FIXATION

Patent Applicant/Assignee:

O'KANE Kevin John,

Inventor(s):

O'KANE Kevin John,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9423154 A1 19941013

Application: WO 94GB745 19940407 (PCT/WO GB9400745)

Priority Application: GB 937289 19930407

Designated States: AT AU BB BG BR BY CA CH CN CZ DE DK ES FI GB HU JP KP KR

KZ LK LU LV MG MN MW NL NO NZ PL PT RO RU SD SE SK UA US UZ VN AT BE CH

DE DK ES FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE

SN TD TG

Publication Language: English

Fulltext Word Count: 1740

Main International Patent Class: **E04G-007/28**

Fulltext Availability:

Detailed Description

Detailed Description

... invention relates to a fixing device and is particularly, though not exclusively, concerned with a **device** for fixing or otherwise holding a scaffold board to a scaffold member.

Scaffolding assemblies are well-known **structure** erected with bolted connections to form access and support systems. Wooden scaffold planks or boards are conventionally simply laid across adjacent transoms. The scaffold planks are not frequently **secured** and accidents have occurred when planks have become dislodged. Where the planks are **secured**, this is often achieved by lashing the planks to the scaffolding assembly with **rope** which is unreliable and hazardous, It is an object of the present invention to provide a fixing **device** for conveniently fixing a scaffold plank to a scaffolding assembly.

According to one aspect of...

10/3,K/10 (Item 10 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00269090

SCAFFOLDING SYSTEM

SYSTEME D'ECHAFAUDAGE

Patent Applicant/Assignee:

PRESSED DRUMS LIMITED,
HOLT Edward Christopher,

Inventor(s):

HOLT Edward Christopher,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9417263 A1 19940804

Application: WO 94GB115 19940120 (PCT/WO GB9400115)

Priority Application: GB 931068 19930120

Designated States: AT AU BB BG BR BY CA CH CN CZ DE DK ES FI GB HU JP KP KR
KZ LK LU LV MG MN MW NL NO NZ PL PT RO RU SD SE SK UA US UZ VN AT BE CH
DE DK ES FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE
SN TD TG

Publication Language: English

Fulltext Word Count: 2614

Main International Patent Class: **E04G-001/20**

International Patent Class: **E04G-01:00 ...**

... **E04G-21:28**

Fulltext Availability:

Detailed Description

Detailed Description

... a derrick arrangement may be used as illustrated in Figure 2, with a pole 6 **mounted** on a separate block 7 and having a pulley 8 at its uppermost end over which a **rope** 9 passes from an **anchor** point 10 on the block 7 to a point on the column. A simple leveroperated pulling or tensioning **device** 11 may then be used to pull the column upright. When the column is in position, it may be stabilised by guy **ropes** 12, as shown in Figures 1 and 3, extending to stakes driven into the ground, to additional concrete blocks, or to

anchor frames having legs **engageable** in soft ground.

In the embodiment of Figure 4, a pair of columns 40 is...

10/3,K/11 (Item 11 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00242918

TENSIONED MEMBRANE CLADDING SYSTEM

SYSTEME DE GAINAGE PAR MEMBRANE TENDUE

Patent Applicant/Assignee:

BIRDAIR INC,

Inventor(s):

WIEBER Robert Francis,

CAPEZZUTO David Paul,

HAYES John Daniel,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9317193 A1 19930902

Application: WO 93US1656 19930224 (PCT/WO US9301656)

Priority Application: US 92841714 19920226

Designated States: CA JP AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE

Publication Language: English

Fulltext Word Count: 3619

Main International Patent Class: **E04B-001/32**

Fulltext Availability:

Detailed Description

Detailed Description

... thermal isolation by insulating
spacer strip 18.

Figure 6 illustrates in cross-section the preferred
construction of clamping rib assembly 20. The clamping rib
assembly 20 is the preferred means for...

...of the membrane panels are encapsulat
ed and secured. In this embodiment, neoprene gaskets are
mounted to the clamping channels in order to improve continu
ity of the clamping force.®
The...terminated in a
lapped seam containing roped edge 25, which is typically a
cord or **rope** section placed into the lap which is then **secured** in the
factory operation by a heat sealing process.

The roped edge provides a gripping surface for stretching the
membrane panels into place across a spanning area and for
securing the panel in the clamped condition.

The membrane panels are preferably stretched in the
field by means of leveraged tensioning **devices**, the preferred
means for tensioning the section of cladding membrane, or
pressure differential **devices**. However, other support and/or
attachment systems may be used to provide positive or nega...

10/3,K/12 (Item 12 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00241982

SAFETY SYSTEM FOR USE IN ERECTING STATIC STRUCTURES

DISPOSITIF DE SECURITE POUR LE MONTAGE DE STRUCTURES FIXES

Patent Applicant/Assignee:

BELL Michael,

Inventor(s):

BELL Michael,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9316256 A1 19930819

Application: WO 93US960 19930203 (PCT/WO US9300960)

Priority Application: US 92834421 19920212

Designated States: AU BB BG BR CA FI HU JP KP KR LK MG MN MW NO PL RO RU SD

SK AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA

GN ML MR SN TD TG

Publication Language: English

Fulltext Word Count: 5221

Main International Patent Class: **E04G-021/32**

Fulltext Availability:

Detailed Description

Claims

English Abstract

A safety system (20) for connection to at least one fixed, elongated, **structural** component (32), e.g., an I-beam, of a static **structure**, e.g., a **building** being erected, to protect a worker (10) located on the **structure** from falling thereoff. The system (20) comprising first and second releasably securable **mounting** assemblies (22A and 22B) frictionally **secured** at respective spaced locations on the **structural** component (32), a rope or cable (24) connected between the **mounting** assemblies, and a sliding **anchor** (26) **mounted** on the **rope** (24). The sliding **anchor** (26) comprising a tubular member **mounted** on the **rope** means (24) for sliding therealong to a desired position whereupon it can be actuated to releasably **secure** it against further sliding. The worker (10) wears a supporting belt, **harness** or other **device** (34), which is connected, via a lanyard (28) and an associated shock absorber (30), to the sliding **anchor** (26), to thereby prevent he/she from falling more than a predetermined distance away from...

Detailed Description

... worker 10

(shown in phantom lines in Fig. 1) from falling. To that end,, the **safety** system 20 is arranged to be **secured** to a portion of the static **structure**, As can be seen clearly in Fig, 1, the **safety** system basically comprises at least two releasably securable **mounting** assemblies 22A and 22B, an elongated **rope** or cable 24, a sliding **anchor device** 26, a dual-headed lanyard 28, and a shock absorber 30, The sliding **anchor device** 26 may take various forms, depending upon the application for the **safety** system, as will be described later.

Each of the mounting assemblies 22A and 22B is...

...second mounting assembly 22B

located adjacent the opposite end of the I-beam, Preferably the **rope** is taut or substantially taut so that it extends generally parallel to the I-beam, The means for connecting the **rope** to the mounting assemblies will be described later.

The sliding **anchor** member 26 is mounted on the **rope** 24 and is arranged to be slid therealong, If the I-beam is oriented vertically, such as shown in Fig. 1, the sliding **anchor** member 26 is constructed so that it can be actuated to releasably **secure** it at any desired position, e.g., height, on the **rope** . Thusf as shown in Fig. 1 the sliding **anchor** member 26 comprises a conventional **rope** grab (to be described later). If the I-beam is oriented horizontally (as some are shown in Fig. 2) the sliding **anchor** member is constructed to freely slide along the **rope** , e.g., the sliding **anchor** comprises a conventional O-ring. In either case the lanyard 28 is arranged to be connected to the sliding **anchor** member 26 and some **safety device** 34, e.g., a belt, worn by the/16256 PCT/US93/ ...and at least one sleeve assembly 44, The strap 42 is arranged to encircle the **structural** member, e.g., the I-beam 32, with the ratchet assembly locking it tightly in place thereon. Each sleeve assembly 44 is **mounted** on the strap 42 and serves as a means for connecting the rope 24 thereto...

Claim

... said second portion
of said structural component being spaced from said first portion thereof, said **rope** means being connected between said first and second releasably securable means,, said sliding **anchor** means comprising a member mounted on said **rope** means for sliding therealong to a desired position whereupon said sliding **anchor** means may be releasably **secured** against further sliding, said sliding **anchor** means additionally comprising means for connection to a **safety device** worn by a WO 93/16256 PCT/US93/00960

1 6

The system of Claim...

...comprises a ratchet assembly.

6 The system of Claim 1 characterized in that
said sliding **anchor** means comprises a flexible tubular member means,

7 The system of Claim 4 characterized in that
said sliding **anchor** means comprises a flexible tubular member WO 93/16256 PCT/US93/00960

17

tightly frictionally **engaged** by said tubular member to preclude said tubular member from sliding along said **rope** means,

8 The system of Claim 1 characterized in- that
said **safety device** worn by said worker comprises a flexible member having first, second, and third, elongated sections...

...being connected to
one another, each of said first ends including a respective connector member **mounted** thereon,, said connector member of said first section being arranged to be releasably secured to...

...a web of flexible material.

10 The system of Claim 1 characterized in that
said **safety device** worn by said worker comprises a flexible

member having a first end arranged to be connected to the WO 93/16256
PCY/US93/00960

18

extending **rope** means between said first and second releasably
securable means and connecting said **rope** means thereto,
providing sliding **anchor** means on said **rope** means, said
sliding **anchor** means being arranged to slide along said **rope**
means ...a desired position and being actuatable so that it
may be releasably secured on said **rope** means against further
sliding,, and connecting said worker to said sliding anchor
means.

12 The...

10/3,K/13 (Item 13 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00226246

**SECURING APPARATUS AND A METHOD
DISPOSITIF ET METHODE DE FIXATION**

Patent Applicant/Assignee:

LITTLEWOOD Joe,
McDONALD Walter,

Inventor(s):

McDONALD Walter,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9300491 A1 19930107

Application: WO 92GB1099 19920618 (PCT/WO GB9201099)

Priority Application: GB 9113544 19910622; GB 9127230 19911223

Designated States: AU BB BR CA JP KR NO US AT BE CH DE DK ES FR GB GR IT LU
MC NL SE

Publication Language: English

Fulltext Word Count: 3018

Main International Patent Class: E04B-007/00

Fulltext Availability:

Detailed Description

Claims

Detailed Description

... METHOD

This invention relates to apparatus and a method of
securing a portion of a **building structure** and is
concerned particularly, although not exclusively, with
apparatus and a method of securing a **roof** of a **building
structure** ,

According to a first aspect of the present invention there
is provided securing apparatus for securing a portion of
a **building structure** , the **apparatus** comprising a plurality
of elongate members and tensioning means connected to one
or more of...

...force thereto, the elongate members being
arranged, in use, to extend over a portion of **building
structure** to be **secured** ,

The **apparatus** may be arranged, in use, to **secure** a **roof** of
a **building structure** ,

The elongate members may comprise portions of **rope** ,

Alternatively or additionally, the elongate members may comprise portions of wire.

The **apparatus** may comprise first and second sets of elongate members, each of said first and second sets being arranged to extend in different directions over the portion of **building structure** to be **secured**, There may be provided first and second tensioning means arranged to apply a tensioning force...

...direction.

The elongate members may be flexible.

Preferably the elongate members comprise portions of nylon **rope**. The portions of nylon **rope** may be provided with a plastic covering. Preferably the elongate members comprise a non-stretch material.

The net may be shaped to fit the **roof** and may be cut to fit around obstructions such as chimney stacks, Where the **apparatus** is used to **secure** a pitched **roof** of a **building structure**, the first set of elongate members may be arranged to extend longitudinally with respect to the **roof**, substantially parallel to the apex of the **roof**, and the second set of elongate members may be arranged to extend transversely with respect to the **roof**, substantially transverse to the apex of the **roof**.

The first tensioning means may apply a first tensioning force to the first set...

Claim

is securing apparatus for securing a portion of a building structure, the **apparatus** comprising a plurality of elongate members and tensioning means connected to one or more of...

...members being arranged,, in use,, to extend over a portion of building structure to be **secured**,

2 **Securing apparatus** according to claim 1 wherein the **apparatus** is arranged, in use,, to **secure** a roof of a building structure,

3 **securing apparatus** according to claim 1 or claim 2 wherein the elongate members comprise portions of **rope**.

4w **Securing apparatus** according to any of claims 1 to 3 wherein the elongate members comprise portions of wire.

51 **Securing apparatus** according to any of claims 1 to 4 wherein the **apparatus** comprises first and second sets of elongate members, each of said first and second sets being arranged to extend in different directions over the portion of **building structure** to be secured,

6 **Securing apparatus** according to claim 5 wherein there is provided first and second tensioning means arranged to...

...apply tension to the first set of elongate members in the first direction.

11 Securing **apparatus** according to claim 6 or claim 10 wherein the second tensioning means are arranged to apply tension to the second set of elongate members in the second direction.

12 **Securing apparatus** according to any of the preceding claims wherein the elongate members are flexible,

13 **Securing apparatus** according to any of the preceding claims wherein the elongate members comprise portions of nylon **rope** .

14 **Securing apparatus** according to claim 13 wherein the portions of nylon **rope** are provided with a plastic covering.

15 **Securing apparatus** according to any of the preceding claims wherein the elongate members comprise a non-stretch material. - 12

16 **Securing apparatus** according to claim 8 wherein the net is shaped to fit the **roof** and is cut to fit around obstructions such as chimney stacks.

17 **Securing apparatus** according to claim 5 wherein, where the **apparatus** is used to secure a pitched **roof** of a **building structure** , the first set of elongate members are arranged to extend longitudinally with respect to the **roof** , substantially parallel to the apex of the **roof** , and the second set of elongate members are arranged to extend transversely with respect to the **roof** , substantially transverse to the apex of the **roof** ,

18 **Securing apparatus** according to claim 6 wherein the first tensioning means applies a first...

10/3,K/14 (Item 14 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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00151999

A DEVICE FOR JOINING TWO BUILDING UNITS

DISPOSITIF SERVANT A JOINDRE DEUX UNITES DE CONSTRUCTION

Patent Applicant/Assignee:

OY LOHJA AB,

MATIKAINEN Jukka,

Inventor(s):

MATIKAINEN Jukka,

Patent and Priority Information (Country, Number, Date):

Patent: WO 8808904 A1 19881117

Application: WO 88FI69 19880504 (PCT/WO FI8800069)

Priority Application: FI 872001 19870506

Designated States: AT BE CH DE DK FR GB IT LU NL NO SE US

Publication Language: English

Fulltext Word Count: 2724

Main International Patent Class: **E04B-001/40**

International Patent Class: **E04B-01:56**

Bode Akintola 08-Apr-03

Fulltext Availability:
Detailed Description
Claims

Detailed Description

... kind of structure is also suited for use
in seismic areas.

The advantages of the **device** according to the
invention become particularly apparent when that por@
tion of the second **anchoring** means which projects from
the: **building** unit is flexible. The second **anchoring**
means may thereby consist of flat iron, steel wire
rope , glass fibre **rope** , or the like.

The second **anchoring** means may be manuf actured
of one piece or two pieces to be joined only when the
building units are interconnected.

At its simplest, the locking **device** intended
for one **anchoring** means is effected in such a way that
the joining means, the first **anchoring** means, and the
building unit together define a pocket for the second
anchoring means. The joining means is thereby...
...of the first anchoring means, the plate
being positioned on the surf ace of the **building** unit
in parallel therewith.

In the f ollowing the device according to the
invention will...

Claim

... point of the second anchoring means (4) in the build,,
ing unit and said locking **device** are positioned in a
completed joint at a distance from each other in the.
vertical direction.

2 A **device** according to claim 1, c h a r a c t e r i z e d in that a
portion (12, 16) of the se
cond **anchoring** means (4) which projects from the
building unit is flexible.

3 A **device** according to claim 2, c h a r a c
t e r i z e d in that the second **anchoring** means (4)
is formed by flat iron, steel wire **rope** , glass fibre
rope or the like.

4 A **device** according to claim 2, c h a r a c o o
t e r i z e d in that the projecting part of the se@
cond **anchoring** means (4) forms a loop.

5 A **device** according to any of the claims 1 to
4 c h a r a c...

10/3,K/15 (Item 1 from file: 348)
DIALOG(R) File 348:EUROPEAN PATENTS
(c) 2003 European Patent Office. All rts. reserv.

01409271

Rope slide for vertical work
Seilfuhrung fur Hang-Arbeiten
Guide de corde pour travaux suspendus
PATENT ASSIGNEE:

Lobo Jimenez, Fernando, (3900530), Antonio Lanzuela, 23 1 dcha, 28029
Madrid, (ES), (Applicant designated States: all)

INVENTOR:

Lobo Jimenez, Fernando, Antonio Lanzuela, 23 1 dcha, 28029 Madrid, (ES)

LEGAL REPRESENTATIVE:

Carpintero Lopez, Francisco (54271), HERRERO & ASOCIADOS, S.L. Alcala, 35
, 28014 Madrid, (ES)

PATENT (CC, No, Kind, Date): EP 1191165 A1 020327 (Basic)

APPLICATION (CC, No, Date): EP 2001500235 010925;

PRIORITY (CC, No, Date): ES 202373 000926

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;
LU; MC; NL; PT; SE; TR

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: E04G-003/00

ABSTRACT WORD COUNT: 125

NOTE:

Figure number on first page: 1

LANGUAGE (Publication,Procedural,Application): English; English; Spanish

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200213	517
SPEC A	(English)	200213	1482
Total word count - document A			1999
Total word count - document B			0
Total word count - documents A + B			1999

INTERNATIONAL PATENT CLASS: E04G-003/00

...SPECIFICATION A1

OBJECT OF THE INVENTION

The present invention relates to a **device** specifically designed to facilitate sliding of a climbing rope, as those commonly used in vertical work performed by workers while hanging from these on **building** facades for cleaning or **construction** work.

The object of the invention is to obtain a minimal friction of said **rope** on its point of support on the upper edge of the wall, where its trajectory curves.

BACKGROUND OF THE INVENTION

In **construction** work, and particularly in facade maintenance work, instead of the traditional nacelle suspended from suitable supports with an adjustable height it is increasingly common to employ simple **ropes**, suitably **secured** to a point on the **roof**, terrace or the like and directed towards the edge of the facade from where they hang down along said facade, so that specialised workers use said **ropes** in the manner used by rock climbers in order to carry out the maintenance work...

...On the top face of this body is provided a lateral containment guide for the **rope** which keeps it centred sideways on the **device** and which allows the **rope** to run vertically as intended along a line defined by the point of installation of the slider, regardless of the point where the **rope** is **secured**.

In addition to the **structure** described above the body includes in its upper front edge an anti-friction coating, preferably **mounted** so that

it can be replaced, which defines a preferably rounded edge which minimises the friction on the **rope** and therefore its wear.

This anti-friction coating can be optionally replaced by a roller...

10/3,K/16 (Item 2 from file: 348)

DIALOG(R) File 348:EUROPEAN PATENTS

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01070315

Safety assembly for roofs or building roofings in general

Sicherheitsanlage fur Dach

Dispositif de securite pour toiture

PATENT ASSIGNEE:

Equipe Trivellato S.r.l., (2688910), Via Galvani 16, 28060 San Pietro

Mosezzo (No), (IT), (Applicant designated States: all)

INVENTOR:

Trivellato, Dino, Via Galvani 10, 28060 San Pietro Mosezzo (NO), (IT)

LEGAL REPRESENTATIVE:

Marietti, Giuseppe (45751), Marietti, Gislon e Trupiano S.r.l. Via Larga, 16, 20122 Milano, (IT)

PATENT (CC, No, Kind, Date): EP 942113 A2 990915 (Basic)

EP 942113 A3 011212

APPLICATION (CC, No, Date): EP 99102891 990304;

PRIORITY (CC, No, Date): IT 98MI149 980309

DESIGNATED STATES: AT; BE; CH; DE; ES; FR; GB; IT; LI

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: E04D-015/00; **E04G-021/32** ; A62B-001/04

ABSTRACT WORD COUNT: 64

NOTE:

Figure number on first page: 2

LANGUAGE (Publication,Procedural,Application): English; English; Italian

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	9937	516
SPEC A	(English)	9937	1602
Total word count - document A			2118
Total word count - document B			0
Total word count - documents A + B			2118

...INTERNATIONAL PATENT CLASS: **E04G-021/32**

...SPECIFICATION the operators.

In general, it is known that a person working in conditions of precarious **safety** - above all in such conditions where they could have an accidental fall - should wear a **harness** connected to a safety **rope** by means of suitable **devices**, such as for instance an break-fall **device** that stops a **rope** running through it when the speed of the **rope** sliding through the same **device** exceeds a certain threshold, or a **rope** sliding **device** that allows the operator to control the speed of descent and to stop when necessary along the safety **rope**.

But it is not always possible to find an easily accessible **anchorage** installation in proximity to the site of operations that allows the safety **rope** or other known type of accident-prevention **device** to be hooked up in a stable and **secure** way. The lack of similar installations often leads not only to disregard for the legally imposed **safety** regulations but also for the most elementary **safety** precautions dictated by common sense.

The need is recognised therefore to propose a safety assembly...

10/3,K/17 (Item 3 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
(c) 2003 European Patent Office. All rts. reserv.

00914057

Safety apparatus

Sicherheitsvorrichtung

Dispositif de securite

PATENT ASSIGNEE:

Borsari, Silvano, (2201920), Viale Storchi 92, 41100 Modena, (IT),
(applicant designated states: DE;FR;GB;IT)

INVENTOR:

Borsari, Silvano, Viale Storchi 92, 41100 Modena, (IT)

LEGAL REPRESENTATIVE:

Modiano, Guido, Dr.-Ing. et al (40783), Modiano Gardi Patents, Via
Meravigli, 16, 20123 Milano, (IT)

PATENT (CC, No, Kind, Date): EP 834627 A1 980408 (Basic)

APPLICATION (CC, No, Date): EP 96202736 961001;

PRIORITY (CC, No, Date): EP 96202736 961001

DESIGNATED STATES: DE; FR; GB; IT

INTERNATIONAL PATENT CLASS: **E04G-021/32**

ABSTRACT WORD COUNT: 118

LANGUAGE (Publication,Procedural,Application): English; English; Italian
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	9815	540
SPEC A	(English)	9815	1558
Total word count - document A			2098
Total word count - document B			0
Total word count - documents A + B			2098

INTERNATIONAL PATENT CLASS: **E04G-021/32**

...SPECIFICATION comprises a plurality of safety units 1 uniformly distributed over the surface 2 of the **roof** 3, that is, in such a way that an operator P is able to reach...

...may be distributed in line every 10 - 20 m along the apex of an inclined **roof** 3. The safety units 1 are interconnected by lengths of cable 4 by means of...

...L and has to therefore move in order to hook the reel 5 of the **safety** cable 6 at another **safety** unit 2, the operator may remain **anchored** to the cable 4 by means of a relative spring catch and a short **safety rope** not shown, thereby maintaining the condition of maximum **safety** for the operator even when moving between the unit 2 and the next unit.

The **safety apparatus** has preferential positions for climbing up and/or down, that may consist of skylights 7...

...2, 3) of the apparatus that extend to an area of the edge of the **roof** in proximity to the eaves, or gutters.

As shown in Figure 4, each safety unit...

10/3,K/18 (Item 4 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
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00645198

SCAFFOLDING SYSTEM

GERUSTVORRICHTUNG

SYSTEME D'ECHAFAUDAGE

PATENT ASSIGNEE:

PRESSED DRUMS LIMITED, (1575630), Isaac Newton Way, Alma Park Industrial Estate, Grantham, Lincolnshire NG31 9RT, (GB), (applicant designated states: DE;ES;FR;GR;IE;IT;NL)

INVENTOR:

HOLT, Edward, Christopher, 30 Orchard Close Gonerby Hill Foot, Grantham Lincolnshire NG31 8HD, (GB)

LEGAL REPRESENTATIVE:

Loven, Keith James (47885), Loven & Co Quantum House 30 Tentercroft Street, Lincoln LN5 7DB, (GB)

PATENT (CC, No, Kind, Date): EP 680540 A1 951108 (Basic)

EP 680540 B1 980930

WO 9417263 940804

APPLICATION (CC, No, Date): EP 94904702 940120; WO 94GB115 940120

PRIORITY (CC, No, Date): GB 9301068 930120

DESIGNATED STATES: DE; ES; FR; GR; IE; IT; NL

INTERNATIONAL PATENT CLASS: **E04G-001/20 ; E04G-001/00 ; E04G-021/28 ; H02G-001/04**

NOTE:

No A-document published by EPO

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
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CLAIMS B	(English)	9840	373
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CLAIMS B	(German)	9840	415
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CLAIMS B	(French)	9840	453
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SPEC B	(English)	9840	1999
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Total word count - document A	0
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Total word count - document B	3240
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Total word count - documents A + B	3240
------------------------------------	------

INTERNATIONAL PATENT CLASS: **E04G-001/20 ...**

... E04G-001/00 ...

... E04G-021/28

...SPECIFICATION a derrick arrangement may be used as illustrated in Figure 2, with a pole 6 **mounted** on a separate block 7 and having a pulley 8 at its uppermost end over which a **rope** 9 passes from an **anchor** point 10 on the block 7 to a point on the column. A simple lever-operated pulling or tensioning **device** 11 may then be used to pull the column upright. When the column is in position, it may be stabilised by guy **ropes** 12, as shown in Figures 1 and 3, extending to stakes driven into the ground, to additional concrete blocks, or to **anchor** frames having legs **engageable** in soft ground.

In the embodiment of Figure 4, a pair of columns 40 is...

10/3,K/19 (Item 5 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

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00568252

Device for suspending a working cage

Bode Akintola 08-Apr-03

Vorrichtung zum Aufhängen einer Arbeitsgondel

Dispositif pour supporter une nacelle

PATENT ASSIGNEE:

NIHON BISO CO., LTD., (1658330), 1-1, Minami Aoyama 1-chome,
Minato-ku, Tokyo, (JP), (applicant designated states: BE; DE; FR; GB; NL)

INVENTOR:

Fukutomi, Osamu, c/o Nihon Biso Co., Ltd., 1-1, Minami Aoyama 1-chome,
Minato-ku, Tokyo, (JP)

LEGAL REPRESENTATIVE:

Selting, Gunther, Dipl.-Ing. et al (11092), Patentanwälte von Kreisler,
Selting, Werner Postfach 10 22 41, 50462 Köln, (DE)

PATENT (CC, No, Kind, Date): EP 574817 A1 931222 (Basic)

EP 574817 B1 960515

APPLICATION (CC, No, Date): EP 93109267 930609;

PRIORITY (CC, No, Date): JP 92181734 920616

DESIGNATED STATES: BE; DE; FR; GB; NL

INTERNATIONAL PATENT CLASS: E04G-003/00 ; B66C-013/08

ABSTRACT WORD COUNT: 220

LANGUAGE (Publication, Procedural, Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	EPABF1	333
CLAIMS B	(English)	EPAB96	333
CLAIMS B	(German)	EPAB96	279
CLAIMS B	(French)	EPAB96	326
SPEC A	(English)	EPABF1	4015
SPEC B	(English)	EPAB96	4014
Total word count - document A			4348
Total word count - document B			4952
Total word count - documents A + B			9300

INTERNATIONAL PATENT CLASS: E04G-003/00 ...

...SPECIFICATION under surface of the forward end portion of the arm c. In this prior art **device**, wire **ropes** f for suspending a working cage e are **secured** at one end thereof to a winding **device** g disposed in the **roof** car b and, at the other end thereof, to the working cage e. For example, as shown in Fig. 8, wire **ropes** f consisting typically of two wire **ropes** f1 and f2 which extend horizontally through the inside space of the arm c are tuned in the vertical direction by a sheave h **mounted** to the forward end portion of the arm c in such a manner that the...

...wire ropes f are then turned in the horizontal direction by sheaves j and k **mounted** to the swivel arm d at locations below the sheave h in such a manner...

...swivel arm d, are turned again in the vertical direction by sheaves l and m **mounted** to the ends of the swivel arm d and extend to the working cage e...

...SPECIFICATION for suspending a working cage for performing work on an outer wall surface of a **building** which, as shown in Fig. 7, includes an arm c secured to a **roof** car b which can run along rails a laid along the periphery of a **roof** of a **building** and one or two swivel arms d which are **mounted** rotatably horizontally to the under surface of the forward end portion of the arm c. In this prior art **device**, wire **ropes** f for suspending a working cage e are **secured** at one end thereof to a winding **device** g disposed in the **roof** car b and, at the other end thereof, to the working cage e. For example, as shown in Fig. 8, wire **ropes** f consisting typically of two wire **ropes** f1 and f2

which extend horizontally through the inside space of the arm c are tuned in the vertical direction by a sheave h **mounted** to the forward end portion of the arm c in such a manner that the...

...wire ropes f are then turned in the horizontal direction by sheaves j and k **mounted** to the swivel arm d at locations below the sheave h in such a manner...

...swivel arm d, are turned again in the vertical direction by sheaves l and m **mounted** to the ends of the swivel arm d and extend to the working cage e...

10/3,K/20 (Item 6 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

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00330442

A DEVICE FOR JOINING TWO BUILDING UNITS.

ANORDNUNG ZUR VERBINDUNG ZWEIER BAUEINHEITEN.

DISPOSITIF SERVANT A JOINDRE DEUX UNITES DE CONSTRUCTION.

PATENT ASSIGNEE:

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PATENT (CC, No, Kind, Date): EP 359765 A1 900328 (Basic)

EP 359765 B1 920520

WO 8808904 881117

APPLICATION (CC, No, Date): EP 88904228 880504; WO 88FI69 880504

PRIORITY (CC, No, Date): FI 872001 870506

DESIGNATED STATES: BE; DE; FR; GB; NL; SE

INTERNATIONAL PATENT CLASS: F16B-005/00; **E04B-001/38**

NOTE:

No A-document published by EPO

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	EPBBF1	216
CLAIMS B	(German)	EPBBF1	206
CLAIMS B	(French)	EPBBF1	245
SPEC B	(English)	EPBBF1	1810
Total word count - document A			0
Total word count - document B			2477
Total word count - documents A + B			2477

...INTERNATIONAL PATENT CLASS: **E04B-001/38**

...SPECIFICATION kind of struture is also suited for use in seismic areas.

The advantages of a **device** according to the invention become particularly apparent when the projecting part of the second **anchoring** means is flexible. the second **anchoring** means may thereby consist of flat iron, steel wire **rope** , glass fibre **rope** , or the like.

The second **anchoring** means may be manufactured of one piece or two pieces to be joined only when the **building** units are interconnected.

In order that the invention may be well understood, three embodiments thereof...

10/3,K/21 (Item 7 from file: 348)
DIALOG(R) File 348:EUROPEAN PATENTS
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00302020

Platform module for suspending in space.

Buhnenelement fur Hangebuhnen.

Plateforme modulaire pour echafaudage volant.

PATENT ASSIGNEE:

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PATENT (CC, No, Kind, Date): EP 332748 A2 890920 (Basic)
EP 332748 A3 900516
EP 332748 B1 920520

APPLICATION (CC, No, Date): EP 88118687 881109;

PRIORITY (CC, No, Date): US 169825 880317

DESIGNATED STATES: BE; DE; FR; GB; IT

INTERNATIONAL PATENT CLASS: E04G-003/16

ABSTRACT WORD COUNT: 123

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

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CLAIMS B	(English)	EPBBF1	1516
CLAIMS B	(German)	EPBBF1	586
CLAIMS B	(French)	EPBBF1	616
SPEC B	(English)	EPBBF1	4989
Total word count - document A			0
Total word count - document B			7707
Total word count - documents A + B			7707

INTERNATIONAL PATENT CLASS: E04G-003/16

...SPECIFICATION A first horizontally extending tube, called a runner, is then connected by means of joint **devices** at each end to the pair of rings nearest to the lower ends of the two adjustable posts which are connected to the wire **ropes**. Then, using two more joint **devices** which are also fastened to **the** lower pair of fastening rings on the outer tube of the post, two more runners are fastened in parallelism **with** each other and perpendicular to the first **horizontally** extending runner. **Three** sides of a rectangle or square are now formed with the runners if a four...

...outer posts. Now, there are two trusses spanning in parallelism between opposite sides of the **structure** and they provide tubular horizontal members for supporting planks. The next step is for the...39D. All of the adjustable posts are hung on the ends of the dangling wire **ropes**, chains, tubes or rods, **40** -43 in due course.

Referring to FIGURE 3 again, now that the pair of wire **ropes** 40 and 41 most remote from ledge 44 have adjustable posts 39A and 39B hung on

them, the posts are connected together by means of a **first** runner tube 48. Connections are made by joint **devices**, a typical one of which in FIGURE 3 is **marked** 35. These joint **devices** are basically the same as the joints described in the two cited patents. Of course other runner end attachment means...

...view of a typical joint 35 is shown in FIGURE 7 locked onto the lower **pair** of rings 28 and 29 on outer axially movable tube 10 of the adjustable post...for turning it in threaded hole 92. A load bearing member such as a wire **rope** extends through the axial length of externally threaded internal tube 93. It is assumed that the upper end of wire **rope** 95 is **anchored** in the top of a **building** or boiler or **wherever** the adjustable post of FIGURE 10 will be used to assemble a platform that is...

...A rod or chain or other elongated member could be used in place of wire **rope** 95 for supporting the load. In this example, wire **rope** 95 terminates at its lower end in a stop member 96 that is suitably fastened, such...